Inside  Fall Soups • Garden Magic • Woodlands Management
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The Sunshine Stove is a woodburning stove for heating and cooking, utilizing a most efficient design and the finest qualities in materials and workmanship at a price people can afford.

The Sunshine Stove is solidly built of heavy gauge steel, cast iron and firebrick. The firebox is completely lined on sides and bottom with a large mass of firebrick. This acts as a heat sink, retaining enough heat to guarantee a very high firebox temperature with a minimum of oxygen and air flow. The well-protected sides and back are 1/8" steel and the top, front and bottom plates are 3/16".

The Sunshine Stove features a heavy two-piece cast-iron door and frame with an air-tight asbestos-rope-lined tongue-and-groove seal. The door is ridged for extra strength and has separate, easily operated draft controls for primary and secondary air. A plate mounted inside the door serves to direct the primary air flow towards the base of the fire for efficient burning.

Arc welding is used on all seams. This and the construction of the door and its frame assure a completely air-tight stove. The Sunshine Stove has a heavily reinforced horizontal baffle similar to those used in Scandinavian stoves. The baffle system and draft controls are designed to work together to maintain a constant and even rate of burning. These, within an airtight firebox, allow complete control of the drafts so that you may safely leave the fire burning when you are not at home.

The Sunshine stove is designed to burn continuously through the winter with tending two or three times a day.

The large door and long firebox make for easy loading of 24-inch logs. To reload, rake the ashes to the front and shovel them out; rake the coals forward and put in fresh wood so that the front ends rest on the coals.

When you need to empty out ashes, do it before raking the coals forward. The front end of the stove will not be too hot at this time. Use an ordinary short-handled shovel to scoop out excess ashes and a long poker which can reach to the back of the stove for pulling wood and ashes to the front.

The firebox is an ideal cooking surface. The top of the stove remains hot enough so that you may cook at any time. You can change your cooking temperature by varying the placement of the cooking utensil and by using simple wire trivets. Water will boil quickly for tea and stews will simmer slowly for hours. The entire surface of the stove is treated with a high-quality finish which has a heat tolerance of 1000 degrees.

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Julie Conlon
Dear FARMSTEAD:

Praise be last Monday my back orders of Farmstead came, and being a cold rainy day — what a good day to spend it. A thought struck me as I read No.1. This is my kind of magazine! Even if I don’t live in Maine, my husband and I read it cover to cover. We have always farmed, more or less, and now live on seven acres. On this we raise our own meat - buy pork and poultry, raise hay to feed and sell. We have our own vegetables and many kinds of fruit. We trade pears, plums and grapes for fish, and give away lots of fruit every year. Apples go into cider and vinegar. We make kraut and dry fruit.

We heat with wood. Our pride and joy is a Fischer Stove, which is as popular in the northwest as Jotul is in the east. You can see why Farmstead is “up our alley”. I feel like a “homesteader” even if we are retired!

Thanks for a wonderful and interesting magazine. Long may you publish!

Mrs. R.D. Castle
Vancouver, Washington

Dear FARMSTEAD:

I enjoyed the article by Barbara Douglass on “Bountiful Comfrey” in the Summer '76 issue of FARMSTEAD. I also found more on the subject by Carolyn Robinson in the Spring '75 FARMSTEAD. I am much interested, as I have a small bunch started. I also have a nice row of Jerusalem artichokes coming along in which I got interested through your Fall '75 issue. I enjoy all of the subjects on growing things. Also I think it would be nice to know more about the poisonous plants.

Gladys H. Hendrik
Searsport, ME

Dear FARMSTEAD:

I'd like to pass along some hints for an abundant garden to FARMSTEAD readers. It may be too late in the season to use some of these tips this year, but put them down in your notebook to use next year and each succeeding growing season.

First, it is important to have a gardening notebook to keep notes on planting, cultivating and harvesting of your crops. Such famous people as George Washington, William Penn, Thomas Jefferson and Luther Burbank found this to be of the utmost necessity. If you take the FARMSTEAD magazine they will send you their “Annual Year 'Round Planting Guide and Record Book.” However, I also keep a looseleaf notebook in which I paste clippings from the newspapers and magazines and tips that other people give me. In fact, my notebook grew to such proportions that I have had to make several notebooks — one for vegetables, small fruits, culinary herbs, medicinal herbs and flowers. These notebooks help to remind me what I did the year that we reaped such a bountiful harvest.

Next I find garden maps a great help in planning my garden, especially if I want to double-crop. I am planning flower garden maps, too, so I can find the tulip and narcissus bulbs in the fall when I want to divide these spring bloomers and there is nothing above ground to show where they are.

I haven't gone the whole route with Ruth Stout, as my sons plow my garden, but I don’t cultivate. I mulch between the rows and weed by hand. Grass clippings, old spoiled hay and even newspapers for mulch.

I like to rotate my garden. I use one area one year and another area another year. Perhaps you have to use the same space year after year. Here is where your last year’s garden map comes in handy. If you planted your peas on the east side and your corn on the west side last year, why not do it vice versa this year? Mix up the rows so the same vegetables won’t be in the same row as last year.

When I bought my peas and sunflower seed, I told the store clerk that I usually plant my Alderman (climbing) peas together with sunflower seed. The sunflowers make a living fence and after the peas are gone the birds can enjoy the sunflower seeds. The clerk replied that he always planted Iochief corn together with his climbing pole beans to save putting up poles. Iochief, he said, was a strong enough corn to support the beans. (I wonder if that’s how we get succotash?) Anyway, it was a good tip to put in my gardening notebook.
Remember! Some vegetables don't make good neighbors. For instance, asparagus dislikes onions, garlic and gladiolus. Pole beans have an aversion to onions, beets, Kohlrabi and sunflowers. Bush beans don't do so well next to onions. It’s a two-way feud with the beets and pole beans. The cabbage family doesn't care for strawberries, tomatoes or pole beans or vice versa. Carrots dislike dill. Chives don't go well with peas and beans. Cucumbers don't like potatoes or aromatic herbs. Don't plant tomatoes near Kohlrabi, potatoes, fennel or cabbage. Peas dislike onion, garlic, gladiolus and potatoes. Again it’s a two-way street with the onions; they dislike peas and beans. Potatoes shouldn't be planted near pumpkins, squash, cucumbers, sunflowers, tomatoes or raspberries. The same is true of pumpkins and strawberries; they dislike whatever dislikes them. Turnips dislike potatoes.

Some herbs, flowers and vegetables repel garden pests. Mint, rosemary, sage, tansy, thyme, hyssop and wormwood will repel cabbage maggots, cabbage worms and cabbage butterflies. Rosemary, wormwood and sage will repel the carrot fly. Wormwood and mint will repel the black flea beetle that bothers kohlrabi. Horseradish will discourage the potato bug. Mint, santolina, tansy, winter savory, sage, coriander, marjoram and wormwood will discourage ants, moths, flies and most insects. I like to plant marigolds together with my stringbeans to discourage the Mexican bean beetle. I always plant my radishes around my squash hills to discourage the squash bugs. Did you know that garlic planted near tomatoes or potatoes will repel blight? A little yeast and sugar in water in can tops will draw slugs where they will drown.

These are a few of the gardening tips I have accumulated over the years and I hope they will help your garden to provide you with abundant living.

Alberta Alexander,
Nedrow, N.Y.

Dear FARMSTEAD:
A suggestion: In the article “How To Build A Fence” (SPRING ‘76, page 26) the sketch on top of page 28 by Rob Shetterly should have shown the chain attached in the area of the tractor’s drawbar, not up high, in the interest of tractor safety! This is how tractors are tipped over due to improper use.

John H. Hall,
Cape Elizabeth, Maine

Dear FARMSTEAD:
I am 19 years of age and looking for a more natural and improved quality of life.
My purpose in writing is that I am very interested in organic farming and its related fields. Eventually I hope to go into organic farming but would first like to gain some practical knowledge and background. If you know where I might find work in this field, I would really appreciate your help. I am interested in learning more than earning and can start anytime.

Thank you for your time.

Doug Hicks
Box 33
Ninga, Manitoba

---


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Dear FARMSTEAD:

We would appreciate any information you can give us about the location of a community of Amish in Maine. We have several pieces of equipment on our farm in which we feel they might have an interest.

We have several large horse-drawn sleds and other horse-drawn equipment. We also have a bean thrasher.

If you know of anyone who would be interested in such equipment, we would like to know. We would like to give it to someone who would use it. We do not want it to go to a dealer.

Virginia A. Leonard
Poland Spring, Maine

Dear FARMSTEAD:

Do you happen to know of any correspondence schools for grammar school age kids?

Sandra Thomas
Leslie, GA 72645

Dear FARMSTEAD:

We are displaced Mainers, living in Texas due to a job transfer. We still have our home in Maine and plan to retire there some day.

Each issue of FARMSTEAD brings many hours of enjoyment, reading about and reminiscing over our “State”, and its way of life. We miss it so much.

At some time would it be possible to include an article on scented-leaf geraniums and their uses in foods?

Glenna M. Morrison,
New Braunfels, Texas

Dear FARMSTEAD:

Your magazine would do a service to your readers if it could discover and publish a satisfactory method of canning greens such as fiddleheads and beet and turnip tops. In the book, Putting Food By, it says to can all greens like spinach, that is, process (in a pressure canner) at ten psi for 70 minutes. I tried this for beet and turnip greens. The result was a slimy, watery soup plus a high bill for bottled gas and a headache from sitting by a hot stove for an hour and 20 minutes regulating the heat.

Why can’t someone in the Department of Agriculture test the pH of the various kinds of greens? They do it all the time for soil samples. Why wouldn’t it be all right to raw pack the shoots of fiddleheads in pint jars so that they would not be too dense in the jars and then process them like asparagus at ten psi for 25 minutes?

Ivy Norten

It’s likely that many people have had the same problems. If solutions have been found, we’d like to hear about them.

-Editor.

Dear FARMSTEAD:

Do you or your readers have any information on horse equipment and harness? I would like to hear about it.

Harold Thompson
Catoora, Oklahoma

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Dear FARMSTEAD:

In my estimation the Royalty purple string bean is the King of beans. It produces well in wet weather or dry weather. It continues to bloom all summer long and produces long meaty beans with very few strings.

I like the purple color of the beans as it is easy to see them on the vines. So that even little kids can pick them, if you allow children in the garden patch.

The purple color of the beans is also a help with the blanching. By the time the purple beans turn green in the hot water, they are ready for the cooling process and bagging up for freezing.

All summer long the Royalty bean patch is a flower garden with the purple-lavender colored blossoms. They are there all summer to enjoy before producing beans. They produce blossoms, tiny beans and mature beans on the same plants at the same time.

Royalty is a heavy producer. I planted my beans the first of June. I have had more beans than I could use on the table. I froze a dozen pints besides giving some to a neighbor.

Here it is nearly the first of September and what are my Royalty beans doing? Why, they are full of bloom and young beans and will produce lovely purple beans until frost.

After frost I will pull up my Royal beans, check the vines, pick any filled out bean pods, and dry them out and use them for next year’s seed.

C. L. Moon
Delavan, Wis.

Portland area farmsteaders may be interested in two evening courses being offered at the University of Maine at Portland. One course, “The Owner-Built Home,” will include readings and visits by guest speakers who have built their own homes. The second course, “Homesteading,” will deal with human ecology, food production, land use, forestry, animal husbandry, economics, etc. Both courses are to be taught by James O’Neil, who with his wife, Nancy, has designed and built his own home and been developing his homestead for five years. O’Neil holds an advanced degree from Goddard College in Environmental Studies and is the Director of the Center for the Study of Human Values at UMPG. Both courses begin in September and will be repeated in the spring of 1977. For further information contact Jim O’Neil, RFD 1, Kezar Falls, ME 04047, 625-8603.

MOVING?

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We need your help to assure prompt delivery of magazines. As we have grown, changes of addresses have caused one of the biggest service problems to our circulation operation. If you plan to move, please use this form to notify us at least six weeks in advance. Also, please attach the mailing label from the front cover when writing about service or change of address. Thank you.
Country Wisdom at its Best...
Brief, accurate and ever-so-helpful!

Here, in precise, accurate "how-to" terms are the natural methods for getting back-to-basics. And you don't need a huge volume to find what you want. Each Country Wisdom Bulletin treats a single subject—thoroughly, but without the frills, like serious "how-to" books should!

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B. Easy-To-Grow Herbs and How To Use Them. Tells you how to grow 30 herbs for flavor, vitamins and beauty in your garden.

C. Perennial Spring Vegetables. Here’s how to grow five old-time favorites that merit a place in every garden: Asparagus, rhubarb, horseradish, Jerusalem artichokes and comfrey.

D. Sharpening and Using Axes and Chain Saws. If you’re cutting wood to burn in your home, this will save you cash and time. The explanation of chain saw sharpening alone is worth the bulletin’s price.

E. How to Raise a Pig Without Buying Feed. Top quality pork at a bargain price. John Vivian has stuffed this bulletin with meaty advice on buying, feeding and housing pigs.

F. The Homestead Way to Grow Grapes. Answers all of the beginner’s questions on selecting varieties, planting, pruning.

G. Raising Ducks on the Small Place. You’ll love this project, and you don’t need a pond for it either. This easy method promises roast duck, a delicacy, at far less than the cost of stew beef.

H. Growing Raspberries and Blackberries. Read these secrets of how to raise all you can eat, and enough to crowd the freezer, on a small plot of land.

I. How to Build and Use a Root Cellar. If you can swing a hammer, you can build the root cellar shown here, and it will pay for itself the first year. All the tricks of storing produce too.

J. Small Scale Maple Sugaring. How to get the sweetness from your own maples without spending more money than it is worth. Plus other trees you can tap for syrup.

K. Homegrown Lettuce 10 Months a Year. Explains an easy way to raise delicious lettuce at little expense, almost the year-round.

L. Eggs and Chickens with Minimum Feed. Have fresh, jumbo eggs, fat hens and a little "egg money" of your own. How to beat the high feed costs by raising some yourself.

M. Plowless Gardening for the Homesteaders. Edward H. Faulkner wrote this in the 40s, and its message is as timely, helpful and thought-provoking today as it was then. Brim full of ideas for the progressive gardener.

N. Making Apple Cider. Tells how to blend and press your own tangy, crisp drink. It’s fun. And if you like cider with a little muscle, the secrets of making hard cider are told here too.

O. Growing Corn for Many Uses. Want the earliest corn in your neighborhood? The best? Make corn meal? Raise your own pop corn? Get rid of the coons? Parch corn? All these questions are answered in this fact-jammed bulletin.

P. Preparing Your House for Winter. Your money back if you can’t save 10 times the cost of this bulletin from only one or two of the hundreds of ideas for getting ready for winter.

Q. Tomatoes — Home Grown the Year Round. Say good-by forever to those square, dry supermarket specials. New varieties and new methods, fully explained here, make it possible to have home-grown tomatoes, fat and juicy, all year.

R. Beans . . . And Peas Too. Offers thoughtful advice on varieties, tells how to get the most from your rows and is full of hints on planting and storing you’ll find helpful.

S. Apples, the Old Varieties. How to find and grow those fine old varieties of apples that just can’t be bought anymore. Here’s all you need to guarantee bountiful harvests.

T. Gourmet Gardening. Looking for something different in your garden? New taste experiences? Instructions here for raising and cooking nine delightful treats that will be the envy of your neighbors.

U. Pumpkins, The Biggest and the Best. Author Hugh Wibergh grows those 100-plus pounders. Here he tells you each step, from where to get seeds, prepare the bed, make sure the big pumpkins have elbow room and lots to eat.

V. Veal Raising, A Family Project. Clear, concise explanation of how to buy a calf, feed, house and care for it, on a small homestead, to get oh-so-expensive veal at a bargain price.

W. The Grafting Manual. Simple explanations and clear illustrations take the mystery out of grafting, make it easy and fun. You can improve the quality and expand the varieties of fruit on your homestead. A real how-to bulletin.

X. Planning Your Orchard: Dwarf Fruit Trees. Here Larry Southwick answers all of your questions on laying out an orchard on your land (no matter how small it is) and selecting varieties.

Y. Keep It Clean: Making Housework Easier. Specific ways to save time, money and energy in work around the home.

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Bulletins are 24 pages long. 75¢ each, any 3 for $2.00, any 7 for $4.25, any 12 for $6.50, any 16 for $8.25, all 26 for $13.00. If less than $5.00, please add 50¢ postage and handling.
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Dear FARMSTEAD:

We will be pleased to have you send us Farmstead Magazine. We live on a small farm here in Alberta. My wife and I have always lived here in Alberta on farms which are not large farms. We have a large garden, and much of what goes on our table in the home comes from our own good garden. We all enjoy real good health. Then we have one Guernsey milk cow, some standard show quality white Chinese geese, black leghorn, black hamburger, and black Australorp chickens, which we get our meat and eggs from. My Dad and Mother came to Alberta the Spring of 1908 from Ontario, where they had been farming for a number of years, and they bought a 320 acre farm where five of us children lived. Now we are all married with homes of our own on farms around here in Alberta, all except one sister who was a school teacher. I don’t grow grain crops anymore now, as I’m 63 years old. My Dad’s and Mother’s old farm is right across the road from our home here.

You can see that we enjoy farm living along with our many farm interests. My brother’s boy, he farms all the land on this farm now for grain crops. I do tractor work for another big grain farmer here, and I work by the hour for wages. When I get a chance I go and do painting for friends who live on farms. I got tired of growing grain crops, and the cost of growing grain is much, much higher than it used to be, so I made a change in my farm work. I’m glad that I did, as I enjoy the farm work I’m doing. I believe the cost of growing grain crops has got away too high for the price the farmer gets for his grain at the elevator here in Alberta. I’m not busy here this afternoon, so since we are going to have your Farmstead Magazine coming to us, I thought I would just write and tell you about what we do here on our small farm, and what our interests in farm living are.

Noel W. Kent
Alberta, Canada

Dear FARMSTEAD:

I’m looking for a piece of secluded property with fields and enough wood to harvest some each year to pay taxes. Would appreciate any response.

James Quinham
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We encourage questions from readers. Also if you have a better or another response to a question already answered send it in! Many of the questions will be answered by experts from the University of Maine Extension Service.

Vaughn Holyoke, Extension Crops Specialist at the University of Maine, Orono, replies to the following questions:

"I've heard claims for diatomaceous earth which is supposed to control fly problems if used sparingly in the bedding of animals. But what happens to earthworms and insects that come in contact with it, when the manure is spread on the garden or composted?

Diatomaceous earth is a material high in silica which is widely used as an abrasive (such as in toothpaste). It is this abrasive action which is reported to cause damage to the respiratory system of certain insects, thereby giving it some insecticidal action. Once this material has been incorporated into the soil it would no longer be in a dry dusty condition that would pose a threat to the respiratory system.

When you consider the large amount of soil (already high in silica) that passes through the body of an earthworm, it seems unlikely that the small amount of silica added to stable manure (as diatomaceous earth) would have any detrimental effect on earthworms or other soil fauna.

"How can corn silage be stored for a small herd?"

Probably the least expensive way to provide storage for corn silage for a small herd is by using snow fence to form an enclosure. Snow fence should be cut into sections that will provide a circular enclosure that has a diameter of about 10 to 12 feet. If my arithmetic is correct, a piece of..."
fence 32 feet long will provide an enclosure that has a 10 foot diameter. The purpose in keeping the diameter small is to avoid spoilage when feeding out the silage. After filling this section with silage, another section of fence can be placed on top (just inside the lower fence) and this can then be filled. It might be possible to stack the fencing three sections high before moving to a new location.

The silage should be kept level during the filling process. One other idea that would keep spoilage to a minimum would be to line the inside of the snow fence with plastic before filling. For best results the silage should be allowed to cure for two weeks after storage has been completed.

“What are the possibilities for commercial mushroom growing in Maine?”

I certainly do not profess to be an expert on mushrooms, but after some amount of reading I would conclude that commercial mushroom production is not a “get rich quick” scheme. The minimum size operation for a small, family-sized mushroom growing establishment requires 10 to 15,000 square feet of growing space. Thus the initial capital for a building and associated equipment is substantial. In addition to the initial capital investments, mushroom growers encounter most of the economic difficulties that confront producers of other perishable crops. The profit depends on the success of the crop and the prices received from the market, both of which fluctuate. Because yields are highly variable, the cost of producing a pound of mushrooms is difficult to estimate. The American Mushroom Institute in 1970 estimated that it was $0.25 to $0.35/lb. The cost is higher today due to inflation. The most important items of cost to the grower are: interest on the investment, depreciation, compost, soil, spawn, pest control for composting, filling, spawning, casing, picking and packing for market, and emptying the beds.

The price differs from one locality to another and from one season to another. It is usually beyond the grower’s control. Because his product is highly perishable, he must send it to market on the day it is harvested or provide expensive refrigeration. Warm spells in the early fall and late spring may greatly increase the supply of mushrooms for several days at a time by raising the temperature in the mush-

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room houses. The temperature rise causes increased rate of growth.

It also appears that mushroom production is as much of an art as it is a science. Thus some amount of experience, or a considerable amount of trial and error is necessary before one could begin to compete with established operations.

My conclusion would be that getting into mushroom production on a commercial scale would be a high-risk venture.

"How do you keep celery from branching out too much? I can raise it in my garden, but there seems to be too much branching out all the time."

FARMSTEAD found some information on handling this problem in *Gardening for Profit* by Peter Henderson, a book published by Orange Judd Co. in 1889. The author had two suggestions for keeping celery from branching out. One method he describes as follows: "After the soil has been drawn up close against the plants with the hoe, it is further drawn close around each plant by the hand, firm enough to keep the leaves in an upright position, and prevent them from spreading . . ." This is shown in the illustration on this page. The second method was "simply plant the celery one foot apart, each way, nothing further being required after planting, except twice or thrice hoeing to clear the crop of weeds until it grows enough to cover the ground. No handling or earthing up is required by this method, for, as the plants struggle for light, they naturally assume an upright position, the leaves all assuming the perpendicular instead of the horizontal . . ."

"I seem to remember references to a product to be added to a wood fire to help prevent soot and creosote formation in the chimney. Do you know of such a product and where it can be purchased?"

There is a product, *Chimney Sweep*, available at fireplace specialty shops and hardware stores. The manufacturer claims that it "reduces soot in chimney and flue and helps prevent fires." *Chimney Sweep* consists of copper sulfate and sodium chloride and costs $1.29 per lb. The instructions are to prepare a red hot fire, partially close the draft, add $\frac{1}{2}$ cup, and open the draft. This is to be done for 4 days. Subsequently, $\frac{1}{4}$ cup is used twice a week for a furnace, $\frac{1}{2}$ cup once a week for a stove, and $\frac{3}{4}$ cup twice a week for a fireplace.
Walter Thompson, Hancock County Extension Agent, replies to these questions:

“Could you tell us what causes potatoes’ stems to rot 2 inches below the surface, turn black and in two weeks time fall over? There are no traces of cutworms or wireworms. These are Katahdins and the past two years we’ve had good success with them.

Our beets seem to have the same thing. The stems turn black, form a bit of a growth and rot. These are Detroit beets and we’ve always had luck with these.”

The disease that usually causes plant stems to turn black and fall over is “damping off”. It is a fungus that is present in most soils at all times. Weather conditions have a great deal to do with its damage. Usually wet soil, poor air circulation, cool temperatures, and moist air conditions for an extended length of time enhance the growth of the fungus. (Treating seed with a fungicide before planting helps some. Applying a fungicide spray to the stems at ground level after they are up sometimes helps.)
There are a few other diseases in potatoes that can cause the plants to react as you described. One is a bacterial wilt, for which there is no cure, except not raising potatoes again in that spot for at least 3 years.

"Do wood ashes affect tomato plants adversely? What soil conditions would cause tomatoes to ripen very slowly?"

Often tomatoes ripen slowly due to several factors; any or all can be present at one time. Lack of available phosphorus, too much nitrogen, soil too wet, temperature (both air and soil) too low, not enough really clear sunny days, shaded by other plants, trees, buildings, etc. variety of tomato plants, too many tomatoes per plant may all be responsible.

It is usually a good idea to mix a couple of ounces of super-phosphate into the soil that goes around your tomato transplants when you set them out.

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"What is the best way to prevent damage to apple trees and apples without chemical spraying?"

The Summer '76 issue of FARMSTEAD contained an article by Steve Page, founder of the Northwind Nursery, "planting an Organic Orchard", which offers some good suggestions. The most important point is that the organic apple grower must be conscientious about caring for his soil. He states, "It is true in many orchards, without poisons, the trees would be in sad shape — because the soil they live in is dead." Mr. Page suggests preparing the orchard site a year before planting by plowing, harrowing and seeding a green manure crop. After the first year, apply mulch thickly to deter weeds, build the soil and conserve moisture. Other preventive practices are proper pruning and orchard sanitation. "Remove the sources of insect pests — infected fruit, twigs and leaves ..." If scab is present, remove leaves after they have fallen — "... till them in, rake them up or at least mulch over them." Remove fallen fruit and prunings. Also, it is important to plant disease resistant varieties in the first place.

Trees can be sprayed effectively without using a chemical pesticide. A dormant oil spray can be applied when some new growth has appeared on the bud. This miscible oil spray works by coating the developing eggs of the insects and suffocating the organism. Mr. Page recommends superior oil which has a 60-70 SEC viscosity, to be applied in the spring. He also suggests liquid seaweed spray as an aid in building plant vigor and disease resistance.

Note: For a discussion of apple borers, see "Ask Farmstead" in the Spring '76 issue.
Christmas is coming, and now is the time to think about those many friends who would enjoy a subscription to FARMSTEAD MAGAZINE. For only $6.00 your friend will receive the next six issues of FARMSTEAD, plus the 1977 ANNUAL. You may enroll additional friends at the special discount rate below. An attractive card announcing your gift will be sent to each friend. Simply fill in the coupons below and mail this page with your payment.

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A Time To Plant, A Time To Grow

It's nearly season's end. My last visit to the garden revealed the promise of a good and abundant harvest. The squashes, corn, tomatoes and onions were thriving. Perennials, new comers to this garden, had obviously found congenial conditions, as both comfrey and Jerusalem artichokes stood tall and verdant, seeming to pulse with vitality.

My herbs, however, were not altogether without disappointment. The dill grew high and thick. Already its briskly pungent flowers had been used in making pickles. On the other hand, the row of sage stood sorrowfully small. I plan to pot a number of sage plants and winter them over indoors. But there should be enough left in the garden for making sausage later in the fall.

With autumn upon us, the vegetables are destined for freezer, root cellar and jars. I am already planning next year's garden in my mind. There are new varieties I intend to grow, and more or fewer rows of what is already here.

Like my garden, our publication, FARMSTEAD MAGAZINE, is completing its yearly cycle. With this bountiful fall issue, we approach the end of our third year. Yet, like my plans for future crops, FARMSTEAD'S vitality assures a prosperous new beginning for next season.

Starting with publication of the forthcoming winter issue, FARMSTEAD will bring its informative and enjoyable articles into readers' homes six times during the year. Our plans to increase FARMSTEAD from a quarterly to bimonthly magazine are both exciting and challenging. Yet, as good gardeners, our staff and contributors find working for our publication important and soul-satisfying.

The reason for our decision to go from four to six regular issues a year was based on two factors. First you, our readers, through letters and comments, requested more of FARMSTEAD. In addition, we believe that by publishing bimonthly we can be even more responsive towards satisfying your appetites for seasonal gardening information. Also, of course, we plan to continue publishing our Annual Planting Guide and Record Books, making a total of seven issues per year in all.

Although it will also be necessary to raise the subscription price from $4.00 to $6.00 a year, we trust that our readers and subscribers will support our endeavour. FARMSTEAD is a unique and excellent publication, and our goal is to give you more of the kind of dependable, well-written material we've been providing all along. It's nearly season's end and time for harvest. Yet it's also time to plan for planting future crops.
Old-timers often discuss the wonderful tasting apples of their youth, and compare them unfavorably with the varieties generally available today. Today’s ten most popular varieties are, in order of production, Delicious, Golden Delicious, McIntosh, Rome, Jonathan, York Imperial, Stayman, Rhode Island Greening, Winesap and Cortland; these are widely grown because of their adaptability to commercial culture, rather than for their flavor. Of these ten, only five were extensively grown before 1900 — Rome, Jonathan, Rhode Island Greening, York Imperial and Winesap. A survey of American farms and orchards at that time would have revealed hundreds of other varieties not prominent today. Many of these old varieties, or antique apples, are better flavored than today’s favorites, and are still excellent for growing at home despite their unsuitability for commercial culture. Apples with romantic names like Seek-no-further, Irish Peach, and Chenango Strawberry are enjoying a resurgence in popularity as more and more people become aware of their advantages.

Our interest in antique varieties of apples began several years before we moved to Maine. A trip to a nearby cider mill in Connecticut opened up a whole new world of gastronomic delights: one bite of a Golden Russet and a Red Astrachan convinced us that there was a lot more to the world of apples than the McIntosh and Delicious found at every supermarket. When we bought an old farmhouse and twelve acres of land in Maine, we immediately began to plan and plant our apple orchard. As each spring arrived, we replaced any trees which had died during the winter, and added as many others as our budget and backs (planting apple trees is hard work!) would allow. After four years, we have forty-seven apple trees, of which thirty-eight are antique types: two each of Chenango Strawberry, Cox Orange Pippin, Gold Pippin, Northern Spy, Red Astrachan, Ribston Pippin, Roxbury Russet, Sheepnose or Black Gilliflower, Smokehouse, Snow, Spitzenburg, Tolman Sweet, Tompkins County King, Twenty Ounce, Winter Banana, and York Imperial; four Golden Russets; and one each Baldwin and Rhode Island Greening. We expect to add a number of different varieties this year.

The trees we have represent only a few of the hundreds of kinds of apples once found on American farms and orchards; despite their frequently superior taste, they died out because certain factors made them unsuitable for large-scale commercial growing. These factors include poor shipping ability, which is of no consequence to the home orchardist, and unattractive color, which is bad for sales but again inconsequential to those who grow apples for their own use. The uneven ripening of some varieties (the apples on a tree ripening gradually over a period of several weeks, rather than all at once) is a disadvantage to the commercial grower, but may actually be an advantage in the home orchard; all apples need not be picked, eaten, or processed at once. Biennial bearing habits in certain species (a heavy crop one year, followed by a small one the next) are also much less of a problem for the home grower than for commercial orchards.
Apples

The most difficult parts of starting an orchard of antique kinds of apples are deciding which of the available varieties to plant, and developing the patience to wait for the trees to start to bear. Bearing age of different apples varies from two to ten years, with dwarf trees tending to fruit earlier than the standard size. In choosing between the many varieties, Maine residents should stress hardiness, especially in the northern and higher elevation areas of the state. Other factors to consider are taste preference (do you like sweet or tart apples?), planned use for your apples (eating, cooking, or both), and whether apples will be eaten or processed soon after picking, or stored for long periods. For better pollination, those who are planting only a few trees might do well to select two or more varieties which bloom and bear at approximately the same time. Those who intend to grow a number of trees might also take ripening time into consideration: do you want the bulk of your apples to ripen at one time, or would you prefer a succession of harvests from mid-summer to late fall? We have tried to choose varieties which ripen throughout the season, with emphasis on those which store well.

Listed below, according to ripening season, are just a few of the many varieties usually regarded as suitable for growing in Maine; bear in mind, however, that type of soil, drainage, and local variations in climate may make a tree which will flourish in one place fail very nearby. (One kind we have been unable to grow at all on our land is Macoun or Macouan — not an old variety — which is widely raised commercially in orchards just a few miles away. We have had four different Macoun trees from two different sources, and all have died. We have also been unable to grow Lady apples.) In general, summer apples do not keep well and should be eaten or processed shortly after harvest. Fall and winter types keep better and may even improve in quality during storage; they should be picked before the first heavy frost and allowed to ripen in a cool dry place.

SUMMER APPLES

Chenango Strawberry: The Chenango Strawberry originated in New York or Connecticut around 1850. It is a beautiful medium to large yellowish-white apple, with red stripes and a conical shape. “The Strawberry,” as old-timers call it, is excellent for both eating and cooking, with an unusual, very pleasant (strawberry-like?) aroma which it retains after cooking. The tree is hardy, long-lived, and bears early. The fruits ripen over a period of several weeks, which is an advantage as they bruise easily and do not store too well. (Available B, M, L, Sc) * See Page 23 for Sources of Old Time Apples

The Duchess of Oldenburg: The Duchess of Oldenburg apple originated in Russia. It was brought to America by the Massachusetts Horticultural Society in 1835, along with Alexandre Téotofsky, and Red Astrachan, three other Russian varieties. It is among the hardiest of all apple trees. The medium to large fruit is greenish-yellow, striped with red, and is very tart. It is excellent for cooking but stores poorly. The trees are very productive when young, but become less so with age. The crop ripens gradually and several pickings may be needed (B, Se)

Irish Peach: The Irish Peach is an old Irish variety grown in this country during the nineteenth century. It is one of the earliest apples to ripen each summer. The medium-sized
fruits are shaped somewhat like the Delicious and are yellowish-green with faint red stripes and many dark green dots. The flavor is mild, rather than tart, and somewhat aromatic. The Irish Peach is one of the finest early dessert apples. (B)

Red Astrachan: Like Duchess of Oldenburg, the Red Astrachan originated in Russia. It is a medium-sized, very beautiful red apple, with a good, very tart flavor. It is also excellent for cooking; if you cook the apples for sauce or jelly with the skins on, and then strain them, the resulting product comes out a pretty shade of bright pink. The trees bear young, but have biennial bearing tendencies. The apples ripen gradually and do not keep well. (B,Bo,M,L,Sc)

Summer Rambo: The Summer Rambo is said to have originated in Sixteenth Century France, and has been grown in this country at least since the early nineteenth century, originally under the name Rambour Franc. The large, juicy, aromatic fruit is a clear bright yellow, sometimes washed and mottled with pinkish red. The subacid flesh is good for both eating and sauce. The tree bears early and is extremely vigorous and resistant to disease. (B,M)

LATE SUMMER — EARLY FALL

Cox Orange Pippin: The Cox Orange Pippin is reputed to be one of the finest of all dessert apples. It was originated in Colnbrook, England, in 1832 by Mrs. Richard Cox. She watched a bee pollinating a Ribston Pippin blossom, and, on a whim, tied a ribbon to the spur as a marker. Seeds from the ripened apple were planted, and one resulting seedling was the Cox Orange Pippin, which subsequently won many awards for quality. The beautiful medium-sized fruits are red and yellow blending into orange; the flavor is rich and decidedly aromatic. The apples ripen in late September and will keep in proper storage until January or February. (B,M,L,Sc)

Ribston Pippin: The original tree of the Ribston Pippin stood at Ribston Hall, Yorkshire, England, from 1709 until 1810, when it was blown over. It was then supported on props, and lingered on until 1840. The fruit is not particularly attractive; it is small to medium in size, orange blushed with red in color. The quality, however, is very high; the very rich flavored flesh is excellent for both cooking and dessert, but not for storage. The trees are quite hardy, long-lived, and bear young, but they are only moderately productive. (B,L,Sc)

Wealthy: The Wealthy is a seedling of the Cherry Crab Apple, and was developed around 1860 by Peter Gideon, of Excelsior, Minnesota, from seed he obtained from Albert Emerson of Bangor, Maine. It is one of the hardiest of apples. The trees adapt well to different soils, are small in size, and bear early, but have some biennial bearing tendencies. They ripen their crops gradually, necessitating several pickings. The large, bright red fruits are extremely attractive, and are good for dessert and cooking but not for storage. This is one of the best varieties for northern Maine. (B,M,L,Sc)

Wolf River: The Wolf River is another extremely hardy variety, excellent for northern Maine. It was originated at an unknown date by W.A. Springer, near the Wolf River in Fremont County, Wisconsin. The fruit is large, extremely attractive, and bright red. It is tender, juicy, and subacid. The Wolf River used to be one of the most popular varieties for baking, and is also good for dessert. The hardy trees are very productive but have some biennial bearing tendencies. (B,Bo,Sc)

FALL — WINTER

Pound or Pumpkin Sweet: The Pound Sweet apple originated in the orchard of S. Lyman in Manchester, Connecticut around 1850. It is among the largest of all apples, along with Tompkins County King and Twenty Ounce. The fruit is amber to golden yellow when ripe. It has a decidedly sweet flavor which many people enjoy for dessert; it is especially fine for baking and pies, though not for storage. The trees are fairly hardy but have some susceptibility to sunscald and winter injury. They do best in gravelly or sandy loam, in a location protected from strong winds which may blow down the large, heavy fruit. (B,Bo,M,C)

Sheepnose or Black Gilliflower: The Sheepnose is one of the most unusual apples in appearance: the color ranges from deep red to nearly black, and the conical shape resembles a sheep’s snout, hence the name. The origin of the variety is uncertain, but the apple was well-known in Connecticut before 1800. The flesh is not as juicy as some varieties and may become dry and mealy when past its peak, but the flavor is rich and subacid, and the peculiar aroma is pleasing to many people, who find the fruit good for dessert. It is only fair for cooking, but stores well. The trees are vigorous and productive. (M,L,Sc)
Smokehouse: The Smokehouse apple originated near William Gibbons’ smokehouse in Lampeter, Lancaster County, Pennsylvania, during the early 1800’s. It is a pleasant, delicately aromatic dessert apple, mixed yellow with red, firm and juicy when ripe. The trees are productive and bear moderately early but are not too hardy and are not recommended for northern Maine. (B, M, L, Sc)

Snow or Fameuse: The Snow apple ranks among the hardiest varieties, and is an ancestor of the McIntosh. Its origin is variously attributed to France, eastern Canada, and upstate New York; it has been known in the Vermont area since 1700. The small, bright red apples are particularly beautiful, with snowy-white flesh. The tart flavor made it the most popular dessert apple prior to the advent of McIntosh; it is still a very fine eating apple, but, like McIntosh, not very good for cooking. The medium-sized trees are productive but have biennial bearing tendencies and are susceptible to apple scab, a fungus disease. (B, Bo, M, L, Sc)

Tompkins County King: Also known as the Tompkins King or simply the King, this apple originated in Warren County, New Jersey and was brought from there to Tompkins County, New York, by Jacob Wycoff in 1804. The extra-large fruit is juicy, crisp, mildly tart and aromatic; the color is yellow, marbled and striped with red. The King is good for cooking and eating. The trees are not as hardy, healthy or long-lived as many other varieties and so were frequently grafted onto other standard-sized rootstocks to minimize these problems. Today, of course, they are usually grafted onto dwarf or semidwarf rootstocks for reasons of tree size; this also serves to make the Tompkins County King hardier and healthier. (B, M, Sc)

Twenty Once: The Twenty Ounce (not to be confused with the Twenty Ounce Pippin, which is an entirely different, inferior variety) is yet another very large apple, named for its size. Its origin is uncertain, possibly in Connecticut. The small to medium trees are quite hardy, but subject to sunscald and canker (another fungus disease). The fruit is green, becoming yellow, with large stripes and splashes of red. It is recommended much more for cooking than dessert. (M, Sc)

Westfield Seek-no-further: The Westfield Seek-no-further (as opposed to others with the same last name) originated in Westfield, Massachusetts. It dates back to the presidencies of Adams and Jefferson, and was the most popular variety with Connecticut River Valley growers at that time. It is one of those apples which lost favor due to its dull-colored, unattractive appearance, yet it is said to have a fantastically good, unusual flavor — “very good to best” in quality. The hardy, healthy trees prefer rich, sandy soil. The Westfield is not recommended for cooking. (M, Sc)

**Sources for Old Time Apples**

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<thead>
<tr>
<th>Letter</th>
<th>Nursery Name</th>
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<tr>
<td>B</td>
<td>Baum’s Nursery</td>
<td>R.D. 2, New Fairfield, CT 06810</td>
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<tr>
<td>Bo</td>
<td>Bountiful Ridge Nurseries</td>
<td>Princess Anne, MD 21853</td>
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<td>C</td>
<td>California Nursery Co.</td>
<td>— Niles District, Fremont, CA 94536</td>
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<td>K</td>
<td>Kelly Brothers Nurseries, Inc.</td>
<td>— Dansville, N.Y. 14437</td>
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<td>L</td>
<td>Henry Leuhardt, Inc.</td>
<td>— East Moriches, N.Y. 11940</td>
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<td>M</td>
<td>J.E. Miller Nurseries, Inc.</td>
<td>— Canandaigua, N.Y. 14424</td>
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<td>Sc</td>
<td>Scions &amp; budsticks for grafting: Worcester Historical Society</td>
<td>— 30 Elm Street, Worcester, MA 01608</td>
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**Late Winter**

Baldwin: The Baldwin was at first known as the Woodpecker or Pecker apple tree because those birds seemed to enjoy living in its branches. It originated around 1740 as a chance seedling on the farm of Mr. John Ball in Wilmington, Massachusetts, and is still grown commercially today. The bright red fruits are crisp, tender, juicy and somewhat aromatic; they are good for dessert, cooking, and storage. The trees are less hardy than some, especially at high altitudes; they are only moderately productive due to strong biennial bearing tendencies. (B, M, L, Sc)

Blue Pearmain: The Blue Pearmain is an American dessert apple dating back to about 1800; the extremely hardy trees have been widely grown in New England since that time. The fruit is purplish-red with a blue bloom, and decidedly aromatic. The flavor is mild and subacid. The apples do not keep well and tend to shrivel in storage. The trees are not as reliable producers as some other varieties. (B, Sc)

Winter Banana: The Winter Banana is a very unusual, very good dessert apple with a sweet flavor and aroma similar to bananas. It originated on the farm of David Flory near Adamsboro in Cass County, Indiana in 1876. The very attractive large fruit is a rich waxy yellow, with pink cheeks; it is delicate and does not keep as well as most other winter varieties. The tree is vigorous, productive, and bears early. (B, Bo, M, C)

York Imperial: The York Imperial got its name for being “the imperial of keepers”, one of the very best for storage. It originated near York, Pennsylvania, before 1830; the owner, a Mr. Johnson, took notice of the tree because neighborhood children visited it in early spring to obtain fruit which had spent the winter on the ground, covered with leaves. Examining some of the fruit, he found it in excellent condition; he took specimens of it to a commercial nursery, which began to propagate the variety. The medium to large fruit is yellow, blushed with light pink; the flesh is firm and juicy, subacid becoming almost sweet as it ripens. The tree is a thrifty, vigorous grower which prefers heavy clay soils. It will grow in cold climates, but the fruit attains better quality in the middle part of the apple-growing belt of the United States.
Lady: The Lady apple originated in France as the Pomme d’Apis prior to 1600. The beautiful miniature bright red fruits were prized in Colonial days as decorations for Christmas and other special occasions. They are also fine for dessert, and store well. The trees are not as hardy as some other varieties and are slow to come into bearing. Fruits develop the best color if the trees are planted in gravelly or sandy loam. (Bo,L,Sc)

Northern Spy: The Northern Spy is among those few antique apples still widely grown commercially today. The Spy, as it is often called, originated in East Bloomfield, New York, in the orchard of Herman Chapin, around 1800. The trees are among the hardiest and bloom late, thus avoiding late frosts which may damage other varieties; they are, however, slow to begin bearing and have some biennial tendencies. The large green and red striped fruits are juicy, spritely and aromatic, and are good for both cooking and dessert. They store fairly well if care is taken not to bruise their thin skins. (Bo,M,K,L,Sc)

Rhode Island Greening: The Rhode Island Greening is another of the old varieties still commercially produced today. It originated around 1700 near a tavern on Green’s End, the property of Mr. Green, in the vicinity of Newport, Rhode Island. Mr. Green raised apples from seed; one seedling bore a large green apple. Guests of the tavern greatly admired the apple, and cut so many scions from the tree that it died of overcutting and exhaustion. The fruits which resulted from grafts with these scions became known as the Green’s Inn apple from Rhode Island, and eventually the Rhode Island Greening. The deep grass-green apples turn yellow as they ripen; their tart flavor makes them one of the very best for pie and other culinary uses, but they are also good eating for those who prefer their apples crisp and acid. They keep through March if properly stored. The trees grow slowly and start to bear late, but are long-lived and eventually become large and productive. They are hardy and with good care bear annually. (B,K,L,Sc)

Roxbury Russet: The Roxbury Russet is another “leather-coated” apple. It originated in Roxbury, Massachusetts around 1649. The fruit is good for both eating and cooking, and, like the Golden Russet, particularly excellent for both cider and storage. The tree is larger, more spreading, and more productive than the Golden Russet; the fruit, though larger, is coarser, less acid, and not as rich. (Bo,L,Sc)

Spitzenburg: There are at least three types of Spitzenburg—Esopus, Flushing, and Newton. Of these three, the best and most common is the Esopus, which originated in Esopus, Ulster County, New York, during the eighteenth century. Catalogs which list simply Spitzenburg, making no distinction between types, are usually referring to the Esopus, which is reputed to have been Thomas Jefferson’s favorite apple. The fruit is generally considered to be one of the very best for dessert, and is also good for cooking. Similar to the Red Delicious in appearance, it is red with yellow dots. The tree is not as vigorous as some other varieties, grows slowly, and is susceptible to disease. (B,M,L,Sc)

Tolman Sweet or Tolman Sweating: The Tolman Sweet apple is said to have originated in Dorchester, Massachusetts at an unknown date; Old Sturbridge Village lists it among varieties common before 1840. The small yellow apples have a decidedly sweet flavor, and are juicy and firm. They were often used for pickling, and are supposed to be a special treat when stewed with quinces (a treatment old books often recommended for sweet apples in general). The trees are extremely hardy, bear early and are heavy producers; because of the fine quality of the rootstocks they were often used as a base onto which other varieties were grafted. (B,K,Sc)

Golden Russet: The Golden Russet is one of the oldest known varieties. The fruits are golden brown and russeted (“leather coated” — like a Bosc pear), with a tart agreeable flavor. They are excellent for both dessert and cooking, and are among the very best for cider. The Russets, as a group, are unexcelled for storage, and will keep until spring in a cool home cellar. Because the apples are small and relatively difficult to pick, they are not adapted to commercial culture. When commercial cold storage made it possible to keep the more attractive red apples for extended periods of time, the once-popular Russets lost most of their market. For the home orchard, however, they are still excellent. (M,K,L,Sc)
A Guide To Raising Ducks

by Olga Willmann

Ducks are one of the easier varieties of poultry to keep. They are hardy and their housing requirements are minimal. Ducks are also much more resistant to disease than most poultry. They do have a greater need for water than chickens and this might be a handicap for some backyard growers.

Ducks are kept for both meat production and egg-laying. However, no breed is ideal for both these purposes. The three most common meat varieties are the White Pekin, the Rouen and the Muscovy.

The White Pekin is the duck used in 80% of the commercial meat operations. The Pekin is hardy and does well in confinement. It does not fly and reaches six to seven pounds at seven or eight weeks.

The Rouen is a descendent of the wild mallard and has dark feathers. It is slow to mature, taking six to seven months, but its meat is reputedly very good.

The Muscovy is a distinct race of ducks. If it is crossed with other breeds, the offspring are sterile. They are not well-suited to mass production, but they have advantages for the home-grower. They are the most efficient forager among the domestic breeds, and they are much better brooders. However, the Muscovy's rate of growth is relatively slow. Females will average 5½ to 6 pounds and males 10 to 13 pounds at sixteen to twenty weeks of age.

The best egg-laying breeds of ducks are the Khaki-Campbell and the Indian Runner. In Europe these breeds are used in commercial egg production. They will lay as well as the best strains of chickens. Individual bird records of 300 eggs and more per year are not uncommon. Layer-type ducks need more floor space than hens, requiring about four square feet per duck. They also require about 50% more feed than hens to produce a dozen eggs. However, duck eggs can weigh up to 32 ounces or more per dozen, which is considerably larger than hen eggs.

Among meat birds, White Pekins and Aylesburys are the heavier layers. Flock averages can go up to 120 eggs or higher and they may lay for six months or more. Muscovy ducks usually lay for a shorter period.

For those who wish to raise a small flock of ducks, purchasing day-old ducklings is probably the best way to start. A brooder house suitable for chickens or a warm, dry, draft-free area in a barn may be used for ducklings. Ducks do very well on deep litter, but sufficient materials must be added to keep the surface clean and dry. Straw or shavings are good litter materials, but paper should not be used over the bedding. Young ducklings have difficulty walking on such a smooth surface, and lameness is a possibility.

Care should be taken with ducklings while they are in the down stage because at this age they are very susceptible to chilling when wet. Water should be freely available, but offered in a way that will allow them to immerse their beaks without wetting their bodies. This is not always easily done since ducks tend to splash and play in their water dish. Wet bedding will probably have to be removed from the area of the waterer frequently.

After two to four weeks, the ducklings may be transferred outside if the weather is favorable. However, if they are kept in confinement they should be allowed one-half square foot of floor space per bird for the first week, three-fourths square foot for the second, one square foot for the third, increasing up to two-and-a-half square feet by seven weeks.

Ducklings should be offered 22 to 24% duck starter ration in pellets or crumbles on a free-choice basis. A chick starter is satisfactory provided it does not contain any drugs. Ducks are very vulnerable to damage by medicated feeds.
At two weeks of age ducklings should be changed to an 18 to 20% duck grower. Again a chicken feed may be used, but pellets are preferable to mash. Ducks waste a great deal of feed when it is offered in mash form. Your ducks will benefit from pasture. While ducks do not compare with geese as foragers, they still are able to supplement their grain feed with grasses, etc. to a considerable extent. Studies by Cornell University indicate that confinement-reared birds grow somewhat more rapidly than range-reared birds, but require considerably more food per unit of gain in weight. If you are unable to give your ducks pasture area, you can still save on commercial feed by providing them with grass clippings and weeds. They must also have grit and should be provided with an insoluble form from one week on.

If you are going to keep ducks for eggs or breeding, you will not need elaborate housing. A dirt floor covered with litter is fine as a breeder house. Good lighting and ventilation are necessary, but insulation and heating are not usually required — ducks prefer to be outside during the day, even in winter. Nests should be built on the floor with the top and bottom left open. Partitions are constructed twelve to fourteen inches in size and are held apart by being nailed at eleven-inch intervals to a six-inch board running along a wall of the pen. A one-by-two inch board is then nailed along the bottom front of the series of nests to make the construction more rigid. Straw or shaving should be placed in the nests, and there should be at least one nest for each three to five ducks. Breeding ducks should have about five square feet of housing space per bird. Plenty of fresh, clean water is essential. There should be swimming water available if your ducks are brooding since it is necessary for them to wet their feathers to provide the proper humidity.

Select your breeding stock when they are six or seven weeks of age. General characteristics to look for are large size, vigor and good carriage. Desirable confirmation is indicated by a strong, clean-cut head, a deep, fairly long body with wide ribs, and a uniform width throughout the bird’s keel. You will have to sex your breeders since it is normal to allow a ratio of one drake to each five or six ducks. Ducklings are sexed by inspecting the vent. Sexing should be done under a strong light to make the small penis of the male more easily distinguishable.

Here are some general characteristics which can be used to determine sex in ducks. When mature, the males are usually larger in both body and head parts. The drake’s main tail feathers curl forward, and in colored breeds the drakes have the more brilliant plumage. There is also a distinction in the quack of males and females. To the practiced ear, the male quack is softer and less clear while the female’s cry is harsher and more distinct.
Muscovies On A Maine Farm

by Jan Willems

Seeing the dark, fast-flying Pato near a Peruvian lake in the mid-sixties, I would never have guessed that I would enjoy its domesticated variety, the Muscovy, on a Maine farm some years later. This strange bird (cairina moschata) seems to be a combination of a goose, a powerful duck and a tree-duck. Seeing the Muscovy perched on a strong branch of a tree and feeling the sharp, large claws on the inner toes of its webbed feet, one is certainly reminded of its tree-duck ancestry! Don’t forget those claws whenever you handle these birds!

Observing a big, black and white drake, its head decorated with fiery red caruncles, the white-peppered crest raised in excitement, eyes, according to the standard specification, “rather morose and bellicose,” one almost gets visions of a reincarnated feathery, fiery dragon. “What kind of animal is that?” many visitors to my farm will ask. “They call it Muscovy here,” I say. In my native Holland I would have said a Cape Duck; the French still call it the Barbary Duck. When it was first introduced in the United States about a century ago, it was called Guinea duck. All are misnomers, and waterfowl purists wage a not-very-successful campaign to call it Pato, its original name and Spanish for duck.

Here on my place in Maine I keep Muscovies mostly for enjoyment. They are easy to care for and I must admit they seldom give me any problems. A Muscovy is usually a healthy, sturdy, and very intelligent bird which almost becomes a pet. In summer they live on grass, other plants, seeds and insects. It is just plain fun to see which almost becomes a pet. In summer they live on grass, dead. This need for water also means extra care in winter, covered when she left them outside on a hot day without a lollipop in their big, more goose-than duck-like bill, swallow it, they still need water to blow their nostrils clean.

Mr. Willems and his many feathered friends live on a farm in Bar Harbor.

I don’t leave my Muscovies outside all winter here in Maine. They like some shelter at night in extremely cold weather. Also, being out too much on hard frozen cold snow can damage their feet, since they just sit on them, rather than tuck them under their wings as some other waterfowl do.

I don’t clip the wings of any of my birds. No worry, the big ducks might make an impressive flight around the farm but, at least in my experience, they always return. Not clipping their wings gives the ducks more chance against any raccoon or fox. Mine wander about freely, and so far I’ve only lost two to predators. One was a hen which clearly defended her ducklings by going out ahead towards the attacker, as they always do; the other was a young drake which, because of a so-called “airplane” or slipped wing, couldn’t flee. This misformed wing can occur both with geese and Muscovies. It is believed to be a result of genetically-induced over-rapid growth and/or a too rich diet in the early period. The big wingfeather shafts grow too quickly and become filled and heavy with blood. The still-tender wing joint cannot support this weight, so that the last part of the wing turns out sideward. In my experience, both genetic and dietary factors play a role, but I am inclined to emphasize feed.

One of the reasons that I switched from penned-up hens and ducklings to free-roaming hens plus their brood (apart from the costs and extra work) is that a better-balanced diet results in fewer slipped wings. I find repeatedly that all our topnotch sophisticated feeds, pellets, and mash don’t beat nature’s varied supply gathered under the instinctive selection of a hen and her brood.

About raising Muscovies: in general no problems. Muscovies usually start laying rather late in spring, show a special talent in hiding their nests, and sometimes may confuse matters by laying eggs in each other’s nests. But usually this sorts itself out, and one hen will sit on the eggs for the full 35 days. Of course, there are exceptions. Two of my hens emerged from under the barn with only three ducklings between them. (I am afraid rats got most of the eggs) and together have been caring very successfully for the little things ever since. In normal case broods keep pretty well separated and there can result some aggressive pecking and squeeking if two families get too close or become mixed together. Hatching by a chicken hen or incubator tends to be less successful because of the high humidity required for a good hatch. Starting the eggs under a Muscovy for the first two weeks might help, provided humidity is being maintained during the last week before hatching. (A simple mist sprayer like those used for houseplants is very handy for this job.) However, for most of my birds I prefer natural hatching, as Mother knows best. This summer during the hot period in June one of my Muscovies left her nest for a long long time, once even an entire day fairly late in the hatching period; however, all eggs hatched; perfectly. The ducks know when to get on and off, and I don’t interfere with that. Close to pipping time they barely leave the nest. They also act instinctively right in refraining from walking out with the very cute and alert ducklings until they are all well-dried and sufficiently fasted after the
Final absorption of the last feed from the egg. The ducks wait until weather and temperature permit their exodus from the nest, to which they in general will not return, soon finding a suitable night-sleeping spot elsewhere. Sometimes a couple of delayed eggs might prompt the hen to sit too long for the already hatched ducklings. In that case I take the remaining eggs to a small incubator where they usually hatch successfully in two to three days, after which I slip the well-dried babies under the original hen at night with no serious problems. In my experience I can almost bet that when a hen remains sitting, the last two or three eggs are fertile and will hatch, whereas when she leaves the nest with still a few eggs in it, you can safely throw them away as they are no good.

It is definitely advisable to keep the hen and ducklings locked up for a certain amount of time, as I know from my own experience, but it depends very much on the individual hen. I prefer taking a risk, or maybe encouraging the survival of the fittest. In any case, I wouldn't wait to let them loose until the ducklings feathered out; this takes much too long, nearly two months. After about three weeks I feel one can safely let them go. After this age there are practically no problems; only, again: keep medicated feed out of reach of the young ones.

So now one has Muscovies, what do you do with them? You can eat them — and they are delicious. The official verdict that you have to butcher ducks before they are seventeen weeks old can be disregarded for private use. Only the skin gets a bit tough, so you may skin them instead of elaborate and time-consuming plucking. I mostly enjoy my Muscovies alive. Notwithstanding their fierce appearance and "bellicose" eyes, they are very friendly, calm, intelligent and attractive birds. I am building up a small stock of rather scarce blue variety, in which "blue" means a beautiful light, soft gray, with some white around the head and wings as the ducks mature — Muscovies get their final plumage in the second year.

Muscovies are not belligerent at all, although one has to provide an adequate supply of females for the quite amorous drake, one to three at least. In the breeding season, when most of his hens are sitting and clearly indicate with indignant shrieks that the time for play is over, old Don Juan can get a bit frustrated. In case it is needed, Muscovies are not at all afraid to fight. One of my older drakes rapidly subdued a gander twice its size which thought it could peck the old man away from a comfortable resting spot in the shade. (By the way they always seek shade on warm days; never leave your ducks, old or young, in a pen where no shade is available.)

In case something threatens (cat, dog or newcomer animal on the block) the females usually go out first to encounter the enemy, with their neck stretched out like a goose and their wings raised.

One last note: How and where do you get Muscovies? It's not so easy in this area of Maine; just ask and look around, or ask the Feed Store. They know what's going on. Here in the Hancock county area there do not seem to be too many Muscovies around, and they are not cheap.

One final remark from an economist. Keeping or raising Muscovies is not a sound economic enterprise money-wise. It's just a lot of enjoyment and some hard-to-evaluate benefits, but that's more than enough for me!
The Muscovy duck is a native American duck, as it originated in South America. It has been known as the Brazilian, Peruvian, Turkish, Muscovite, Musk, Indian, Guinea and Barbary Duck. For the last fifty years it has been known as the Muscovy Duck.

This duck is different than most other domesticated varieties. It does not quack like other ducks, but rather hisses like a goose. The drake does not have the curled feathers on the tail common to the male ducks of other breeds. The sex is determined by the size of the adult bird. The drake is larger than the hen duck and weighs eleven pounds. The hen duck weighs six to seven pounds. It takes five weeks for the eggs to hatch while other ducks require four weeks.

The Muscovy duck when roasted has a delicious gamey flavor more like wild duck, but without the fishy taste generally associated with wild ducks. For those who like the flavor of a good-tasting, meaty duck without a lot of fat, the Muscovy cannot be excelled.

This duck is very hardy and can be kept outside all winter. They will break ice on water so that they can swim and will spend the coldest night outside sitting on the snow with their head tucked under their wing. They are economical to raise as they forage on grass in summer much like a goose. They have very powerful wings and, unless the outer feathers are clipped, will fly up in trees or roof-tops.

Young ducklings thrive on wet mash. They can be fed duck pellets or the same mash and grain that chickens are fed. However, it is better to moisten the mash, as ducks waste a lot of feed if it's dry. They must always have water for drinking.

The Muscovy Duck is of three basic colors — white, black or blue. The white Muscovy is all white with a pinkish or flesh-colored bill, blue eyes and pale orange-colored legs and feet. These dress out for market very nicely with no dark-colored pin feathers left in the skin.

The Black or Colored Muscovy is mostly black with white. The black is predominant on the crest, head, back, wings, and primary feathers. In the colored varieties, the more greenish-black feathers on the bird, the better. The bill should be pink or shell-colored. Its toes and shanks are yellow or dark-lead colored.

The Blue Muscovy has blue and white plumage. It is a cross between the white and the black Muscovy, but it does not always run true to color.

The face in both sexes is bare, bright red, fleshy and carunculated. The male when alarmed or angry erects his crest and turns bright red. This angry countenance combined with his loud hissing gives him a very wicked appearance.

The mother Muscovy is a very good “sitter” and hatches out as many as eighteen ducklings at one time. If the babies are taken away from the mother, she will start to lay again and have a second hatch.

Mother ducks do better if confined until the ducklings have feathered out. If allowed to roam, the mother might take the ducklings out in the damp grass in the early morning where they may get wet and lost as they can not keep up with her. I have lost almost half of one duck's hatch when she left the nest before I expected she would.

A trio of one or two year old Muscovy Ducks will cost around ten dollars and can be obtained from poultry breeders. However, the Muscovy seems to be a very popular farm duck. Perhaps breeders could be bought from farmers in the fall. Sometimes a setting of eggs can be bought in the spring to be set under a hen. To insure the duck eggs hatching, they should be dipped in water the last week of hatching time. This dipping rots the egg shell to help the duckling break out of the egg. When the duck broods the eggs, she wets her feathers before she sets them on for the same purpose.
a weight is hung on the handle

Cheese Press

a bare-foot Auger

without the spiral tip

offset handle...
... to prevent scraped knuckles

Broad Axe

Shave-horse...
workman's foot controls clamp

which holds wood being shaved with a drawknife
Tools of Maine’s Heritage

On Augers, Froes and Crozes

by A. Carman Clark

The Matthews Museum of Maine Heritage in Union, Maine has been open to the public for eleven years. During each of those years men and women have been fascinated by the display of antique tools, most of them designed and made in the town of Union. I had the privilege of cleaning, cataloging, planning and setting up the tool exhibit, thus learning about this field of Americana.

Planned and hand-made to fit the working needs of the settlers who lived here from 1786, when the first blacksmith arrived, until about 1860 when factory-made tools became available, these farming implements were created to fit the physical differences of their owners. Feeling some of the wooden handles, the length, breadth and indentations worn by the hands of the owners, one can almost picture the men to whom these tools belonged.

The names of the old tools are a pleasure to know — the crooked froe, the bare-foot auger, the croze and the shave-horse. In those early days when each settler, with the help of his neighbors, built his own home, the froe was the short handled, knife-type wedge used to split a block of wood into shingles. The crooked-froe was used the same way, being struck by a maul to split a block of wood into slightly curved strips for barrel staves.

Barrels were important items for storage on Maine farms. In this section of Maine, they became a valuable economic item as many farm families spent bad weather days making barrels and casks for shipment of burned lime, apples and cider. Using native materials from their own land and family labor (it is reported that by the time a child was ‘stave high’ he was expected to help in this work) it was possible to earn enough cash to pay the taxes. As many as 150,000 casks were made in one year in Union. Prices paid for these ranged from eight cents to eighteen cents per barrel.

The croze was the tool used to cut the grooves inside the top and bottom of the barrels so that the barrel head would fit snugly in place. No nails were used. Split saplings were soaked in the brook, then shaved into desired thickness and used as hoops to hold the barrel staves in place. Overlocking notches and a twist held each hoop in place and as they dried, they became tight and firm.

The shave-horse was the home-made work bench used for shaving the split saplings for use as barrel hoops. Usually built of odds and ends of wood, each man created a shave-horse to fit his size and working habits. The seat and the foot pedal which operated the clamp holding the hoops had to fit the length of a man’s legs. Many people collect and polish old spinning wheels. In the Matthews Museum there’s one old shave-horse I’d like to polish up and see how many uses I might find for it today. I know it could be readily adapted to braiding strips for rugs.

The bare-foot auger is a boring device without the small spiral worm to start the tool in the wood. It was used after a regular auger had made a fair start in thick planks, especially in shipbuilding. By boring without the tip, there would not be an accumulation of sawdust and shavings in the hole and this made for a cleaner job in joining and fitting.

Those early blacksmiths were artists. Regardless of their original purpose, some of the antique tools are a joy to view and to handle. One of my favorites is a wrought iron cage head brace. Designed so that the working man could rest the large head against his chest while drilling a hole, the proportions and balance of the whole is a delight to behold.

Illustrations by Liz Buell.
Hammer heads were made by the local blacksmiths and handles were cut, shaped and set to fit the individual farmer's size and working habits. White ash was generally used for making handles because it was tough and long-lasting. Hammer heads were designed for specific purposes—stone cutting, coopering, shoe-making, blacksmithing, and carpentry. But many of the older visitors to the museum have told tales of adapting some of these hammers to other uses, such as using a farrier's small hammer for working up under the eaves. My own old wooden maul is ideal for driving in tomato stakes.

Hay knives have also been found in many shapes and sizes. Before the advent of baled hay, farmers used these long notched knives for cutting sections out from the hay piled in the loft. The broad axes and the smaller versions of this design, sometimes called sleepers, had handles shaped to fit the man who swung them. Those used for hewing beams and railroad ties had offset handles so the workman's knuckles wouldn't scrape the log and these were either left-handed or right-handed to meet the need of the hewer.

A cheese press was also a valued piece of farm equipment. Usually made by the farmer himself, these varied from pleasing, neat constructions to haphazard structures of odds and ends of lumber. From interviews with older museum visitors, it seems that some were copied from the neighbors', some made new designs, and one man claims that his mother demanded one that would fit exactly into the shed corner. By the time the Matthews Museum had acquired nine cheese presses, the Smithsonian wrote to ask if we could find one for their collection. Split ash baskets were used to strain the curds for the cheese-making and today many country people use these large curd baskets for washing spinach and other greens for freezing.

The old tools and hand-made equipment of our first Maine settlers stimulate a respect for their ingenuity and their sense of quality. It should, also, stir our imaginations to see what we can do with the ideas they have left us, and what designs we might improvise for the chores of '76.
Ergot is a yeast-related fungus that attacks the flowers of rye and other cereal grains. As it matures, it replaces the true grain with a long, brown or violet colored structure that is grain-like in appearance but certainly not in constitution. The structure, which is also called ergot, is poisonous to animals and to man. Historically, it has been the cause of some very dramatic epidemics. During the Middle Ages it was responsible for a disease severe enough to be called “St. Anthony’s Fire”, and a psychologist has recently theorized that the 17th century Salem witches were the victims of bad rye. In 1884, an outbreak of ergotism in cattle caused a panic in the Kansas beef industry, because the gangrenous symptoms were incorrectly diagnosed as hoof and mouth disease, which was incurable and contagious. As recently as 1951 an entire village in southern France was afflicted with the disease when the unknown parasite attacked the rye crop.

Cases of ergot poisoning have been pretty rare in recent years due to federal standards which declare grain with more than 0.3% ergot by weight as unfit for human consumption. That’s 3/10 of a pound per hundred pounds, or a bit less than 1/20 of an ounce per pound of rye, and it’s expected that the U.S. Department of Agriculture will soon change that standard to 0.1%. One would think, therefore, that ergotized grain is a thing of the past, and that we might more effectively concern ourselves with the modern poisons in our food in the form of preservatives and dyes. However, it is important to note that government grading of domestic grains is not compulsory, and it is completely the responsibility of the grower to submit his grain for the check. I think it’s quite possible that many growers are unaware of the standard, of ergot, and of the hazard it presents, because ergot has recently been found in conspicuous amounts in seed rye and in rye berries intended for flour and food. I have seen it myself in bagged rye on the shelves of my local organic grocery, and its appearance has been frequent enough to raise some question in my mind regarding our standards for inspection of grain. As I sought more information from growers and distributors of rye and other grains, I realized that public awareness of the parasite and its dangers is limited. The local flour mill and seed company had never heard of ergot, nor had my father who grows rye as a forage crop for his dairy herd. The growers who let me check their grain barrels had some strange misconceptions about it. Some thought it was mold, another said that he picked the ‘dark grains’ out to feed to his animals! Because I am concerned about the prevalence of this stuff, it seems appropriate to describe ergot, its poisonous properties, and how it affects a field of grain. I feel that this information is particularly important for landowners who are growing their own rye for personal consumption, for sale to small cooperatives or graineries, or as forage for animals.

Like many other poisonous plants, ergot has certain chemical properties which make it useful medicinally. One of these is a drug derived from the fungus and used to produce uterine contractions during childbirth, and another is lysergic acid which is a component of LSD. (Hence the theory that the Salem witches were on an extended trip.) However, a third substance constricts the walls of

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Ergot

by Heidi Landecker

Ergot is a toxic, brown or violet structure that has been found in rye intended for flour or food.

capillaries and arteries, thereby reducing circulation. There are two types of poisoning resulting from ergot, depending upon the amount that’s ingested and the time period over which it’s consumed. One or both may affect animals and man.

One kind of poisoning results when a small amount of ergot is consumed each day over a long period of time. This is gangrenous ergotism, and it causes a loss of circulation in the extremities such as the hands, feet, and even the tips of the ears. The other type of poisoning is called convulsive ergotism and the symptoms can appear dramatically within two days of feeding on the infected grain. In this amount it affects the central nervous system, producing excitability, muscle spasms, convulsions, and delirium.

Because of the way that ergot reproduces and spreads, there are certain climatic conditions that are necessary for it to infest a field of rye. To be able to detect it when your grain is growing, and to be able to control it, it would help to be aware of its life cycle. The first noticeable stage is a sticky substance on the flowers of the grain, known as the "honeydew" stage. This is produced by the parasite and contains spores which are one stage of its method of reproduction. The "honeydew" is attractive to insects, so the spores are easily carried from one flower head to another, where they infect the young ovary of the developing grain. This infected seed is replaced by the dark brown or violet ergot that is illustrated here. If the crop is not harvested, it will fall to the ground with the other grains and winter over in this stage. In the spring, a unique biological clock causes the ergot on the ground to germinate a second type of reproductive spores at exactly the same time that
the rye flowers are opening. These spores, the primary source of infection for the young flowers, can only travel by wind. In order to reach the rye that is blossoming above them, the spores must travel upward several feet, which happens best in the convection currents circulated by moist air. Since reaching the flowers is such a chancey thing, it is helpful to the formation of ergot if the flowering period is prolonged. So, a springtime that is rainy and cool, with only short periods of sunshine, is necessary if ergot is going to form at all. Those conditions will lengthen the time that the flowers are open as well as send the spores off in the right direction. Ergot will also flourish in low, protected areas that are not subject to very strong winds.

There are no varieties of rye that are resistant to ergot, and although rye is most commonly affected, wheat, oats, barley, and wild grasses may also be susceptible. The first method of controlling the fungus is to select ergot-free seed, or if you find dark, longer “grains” in your seed rye, dispose of them. (Don’t throw them in your compost.) This doesn’t always work since it is possible for ergot to spread from surrounding grasses. If the fungus has affected crops in your area in the past, it would help to clean out susceptible wild grasses from around grain plots by simply mowing them before they flower. Burning fields in which the parasite has been known to mature will help to prevent the germination of spores the next spring. There are some nonsusceptible crops, such as certain strains of barley in which the flowers do not open very far, and it would help to rotate these with rye if that is possible. When ergot mixed with seed rye is planted deep in the ground by drill seeding, it is more difficult for the spores to germinate than if they are sown close to the surface. One or more of these control methods might do the trick, or the weather might eliminate the problem entirely by providing the wrong conditions for the fungus’ life cycle.

There are many questions still unanswered in my mind about this dangerous substance that appears to be relatively common in marketed rye. I think it’s important to mention that a simple count of ergot grains is not a measure of the danger. The effect and potency of the poisonous alkaloids vary with the metabolism of the individual (or animal) that has ingested them. Also, the concentration of alkaloids varies from one ergot to the next. So 0.3% by weight, or the new projected figure of 0.1% are rather arbitrary standards, made more so by the fact that inspection of grain for ergot is not mandatory. I’m not aware of any reported cases of poisoning, so perhaps even the obvious amounts of ergot on the shelves are not harmful and all is well. (But I doubt it). If not, however, the process of inspecting our grain needs revision, and even if ergot is perfectly harmless in that amount, we as consumers suffer a reduction in the quality of the product. This leads to the larger question of the limited control we have over what we put into our bodies for nourishment. When we are on the purchasing end, we have little opportunity to be selective and little awareness of potential dangers in our food.

The movement, at least among those of us who subscribe to publications such as FARMSTEAD, is decidedly away from a consumer status and towards a closer contact with our food by producing it ourselves. So the risk, at least for cultivating poisons like ergot is minimized, if we know what we grow.
Working on the woodlot has always been an important winter activity on Maine farms, coming as it does between the fall harvest and spring planting. Besides supplying firewood for the house and lumber for farm buildings and repairs, the logs, pulpwood, and other products provide a welcome source of income. The present day farmsteader can look to his woodlands for the same reasons and may well consider wooding as a year round farm activity.

Early photographs and illustrations of the Maine countryside before the turn of the century often show long stretches of fields and pasture broken only by stone walls, fences, and an occasional wooded area. Anyone who has explored their local countryside or looked over aerial photos and topographic maps will realize how extensively our early farmers cleared their land and worked every acre capable of growing crops or providing grazing. They pushed their stone walls and cedar rail fences back to the swamps and rocky hillsides. Consider for a moment the effort that went into building the many stone walls and rock piles on your own land. Over the years agriculture has pulled back to the most accessible and productive areas. Several generations of declining population have left the woods full of abandoned roads and cellarholes. Many of these woods were once productive fields, orchards, and pastures.

As you survey your own acres and plan how best to utilize them, you may conclude that woodland management deserves an important place in your farm plans. Jack Bulger wrote “Be Your Own Woodlands Manager” in the Fall/Winter 1974-75 issue of FARMSTEAD. His ideas are a concise and comprehensive approach to woodlot forestry and an excellent reference. The economic changes sweeping across this nation are blowing the cobwebs out of forestry thinking here in Maine, and the farsighted landowner may want to anticipate them on his own acreage.

For many years Maine country real estate changed hands at Depression prices. Woodlots sold for $5 to $30 per acre and cutover lands could often be picked up for back taxes. Stumpage values and labor costs were low and property taxes seldom exceeded 10 cents to 25 cents per acre. Wood was often hard to sell unless one was fortunate enough to have a pulpwood contract or a market for firewood. Even ten years ago wooded land could be bought for about a fourth of the stumpage value with the land essentially thrown in for nothing. Wood using companies, a few land management concerns, and woods contractors were the only active land buyers. It is not surprising then that the business-like approach was to buy only the best lots, cut off the operable wood, and then reinvest in more land. Cutover lots often were abandoned for taxes. With land cheap and plentiful there were few incentives to manage it carefully with any thought for the future.

Recreational pressures pushed up land values rapidly in neighboring states and Maine land finally caught the specu-
The influx of out of state buyers and reawakening in country living has pushed prices up to the point where cut-over woodlands bring $100 to $150 per acre and old farmsteads can bring several hundred dollars an acre depending on buildings, location, accessibility, and view. The land boom may have peaked for the time being, however, as many buyers reassess the romance of homesteading or the logistics of a second home in the country. Many buyers in haste may now repent in leisure and some poorer properties may be hard to sell at any price. The ability of any area of land to produce crops or wood depends to a great degree on the nature of the underlying soil, but too few buyers give attention to this when they consider a property.

Inflation has pushed town budgets higher and resulted in larger tax bills on country acreage. When the town is reassessed and you are told that past sales figures place evaluations of from $50 per acre on alder swamps to $110 on operable softwood stands and $135 on tillable land, you may find that the tax bill on your “Back Forty” has jumped from $20 to $80. Many owners feeling the pinch have sold their stumpage, realizing perhaps $50 to $200 per acre from the wood, and then dumped the cut-over land on a less knowledgeable buyer for what it will bring. This land may not be able to return the cost of the taxes for many years, much less provide wood products for the people and businesses of the community.

A new owner buying an old farm property with useable fields may be fortunate to find one with a woodlot that has not been cut at some time over the past 15 years. Prices can range from $100 to $200 or more an acre for the land alone. If you assume a nine percent interest cost and $2 per acre taxes, these annual fixed costs amount to $11 to $20 per acre. It is possible to recover this from crops, hay, and even pasture after the land has been improved, but it poses more of a problem with woodlands, which may well comprise the larger part of your acreage. Assuming a growth rate of a half cord per acre per year (a reasonable expectation from well stocked good sites) and an average stumpage value of $10 per cord (supposing a mixture of operable pulpwood and sawlogs) then a well managed acre may grow $5 worth of wood. Land with 10-15 cords per acre of wood is worth $100 to $150 in stumpage alone, but you can’t cut this growing stock very heavily without reducing future growth. When property taxes reach the point where they take 30 percent or more of the growth value, woodlands become a marginal holding even for the low cost owner of long standing.

We have been talking only about stumpage values and considering present circumstances, woodlands held for stumpage alone are a low return investment. Sooner or later, however, stumpage prices must rise as they have in other New England states where many landowners are refusing to sell their timber to loggers, holding land and timber for non-economic reasons. The farmsteader, however, need not be a seller of stumpage any more than he needs to rent out his cropland and pasture or sell off his hay. None of these alternatives properly utilize the land for the landowner, nor provide any measure of economic return in terms of the real values that careful management can realize.

As a graduate forester who left someone else’s woods for a desk and telephone in the financial world, I have completed the circle and returned to our own woods — older, hopefully wiser, and certainly with new perspectives. After working on our own lands for ten years, my convictions are stronger than ever about the advantages of intensive forest management. Good woodlands are an excellent inflation hedge investment in a unique natural resource that is renewable and can be improved by one man’s hand. Our “social security retirement” in another twenty years will be the quality sawlogs that are growing today as 8 to 12 inch pulpwod sized trees. These are our “green chip investments.” It takes planning, equipment, care in logging, and thoughtful marketing to realize the best return out of everything we cut.

We surveyed our property lines during the process of buying our farm back in 1965 to make sure of what we were getting. Then we walked out all the old woods roads to see what had been done in the past and get an idea of what harvesting and timber stand improvement work were needed. Our efforts have concentrated on salvaging dead and dying trees and then improving the areas around these trees. We have opened up and added to the road system so that the entire woodlot is now accessible.

Equipment is a stumbling block because it can take a big investment to set up a tree farm woods operation. We still use our first tractor, a Farmall Cub Lo-Boy, which we bought to mow our fields and haul wood. It has yared several pulpwod sized trees at a time or pulled a small two wheel trailer with a quarter cord load. We are always picking rocks in our fields to fill wet spots and prevent soil erosion on our woods roads. The trailer can carry 20 five gallon pails of rocks to a trip. Early in our experience we found that pair of chains were an essential investment to operate in mud, snow, and over small brush and hills. Wheeled tractors with wide front ends are more stable and safer to operate than narrow front end models. Some models can be equipped with special steel tracks called “bombardiers” to improve traction and floatation. Your regular farm tractor can do a great deal of woods work if you are careful and don’t try to set production records. Many wood cutters use “jitterbugs” made up from auto or truck chassis and modified to haul four foot wood.
A winch is a handy addition to any piece of equipment to drag trees out to your road. Crawler tractors have been used in the woods for many years. Their slow speeds and high maintenance suspension systems have lead to the development of the popular wheeled skidders. Crawlers should be equipped with a woods cab, blade, and winch to skid logs, haul woods trailers, and build roads. Older machines such as the John Deere 420 can often be found in good condition for $1500 to $2500.

We have a Bombardier J-5 tractor and trailer which is a rubber and steel tracked vehicle designed to haul a cord of four foot wood or small logs. We mounted a jeep sized winch on the back of the tractor to twitch wood and operate the loading mast that mounts on the front end of the trailer. This is a very versatile machine that also enables us to load our logs on our one-ton truck. We also have an International TC-5B Skidder, a crawler tractor chassis with a rubber tired suspension system and metal tracks. The blade, heavy cab, and winch and arch enable us to handle the largest trees we have. Both of these machines were specially designed for woods work and are ideally suited to our type of operation. Most loggers today prefer the more powerful and higher capacity wheel skidders which are too large and expensive for small scale operations.

Both of our machines cost between $2000 and $2500 when bought used, and required an additional $1500 or more in repairs to restore them to dependable operating conditions. These machines appear on the market from time to time and can be bought for $3500 to $6000 depending upon circumstances. It is helpful to have an electric welder, a set of torches, a good set of tools, garage space, and some mechanical ability to repair and maintain this equipment. Parts are expensive enough without having to call an equipment dealer whenever something breaks down. We handle our equipment carefully and maintain it to keep operating costs down. Although we have elected to go with engine powered equipment, a strong case can be made for a single horse or a team for woods work. Paul Birdsall has written two articles "A Greenhorn Tries Workhorses" in the Spring/Summer 1974 and "My First Team of Workhorses" in the Winter 1976 issues of FARMSTEAD, in which he relates some of his experiences with his own two animals. If you can keep your horses busy all year and they fit into your operation, they can be an attractive option for woods work.

Trees are living entities so that each species has its own growth characteristics. Selected reading about the trees that you find on your land coupled with careful observation of what you see will start you towards becoming a woodsman. You local Maine service forester will help you learn what to do in your stands and show you what work such as tree planting, pruning, and timber stand improvement can qualify for federal cost sharing programs. Some paper mills and lumber companies have foresters available to work with small woodland owners. These foresters will be glad to show you how your woodlot can become a certified Maine Tree Farm. Friends and neighbors with woods experience may share their knowledge and techniques with you. Good forestry, like good farming, mixes a measure of book learning with a heavy portion of practical common sense. Despite a formal forestry education, I never fully realized how much was going on in the woods until I started to work on my own lands.

No discussion of tree farming is complete without mention of Christmas trees. One of our first operations on our land was the cleaning up of a clearcut area next to our field and its conversion to a natural stand of balsam fir for Christmas trees. We have cut greens and trees here for seven years and began cutting in our plantation last year. My article entitled "How to Grow Beautiful Christmas Trees" in the Winter 1976 issue of FARMSTEAD tells of these experiences.

Our own woodlots have varied histories. The home place was cut over hard about 40 years ago by a firewood dealer. Since then the residual pine, spruce, birch, and hemlock has grown to log size. Pastures abandoned in the 1920's now support stands of ash, birch, cedar, pine, spruce, and fir. Some pine and spruce was cut shortly before we bought the property and these areas are now stocked with promising young growth of ash, rock maple, and birch already 15 to 20 feet tall. Most of the openings left by the heavy cuts in the 1930's have grown up with the balsam fir that was there under the pines. These trees are 40 years old or more and we have had to clean them out since mortality from the balsam wooly aphid and butt rots have taken a heavy toll. We have also cut poor quality and blister rust-infected white pine and the poorer spruce to leave only the best trees for future lumber needs and to serve as a seed source. Low value cherry, red maple, grey birch, beech, cedar, and aspen have also been cut. The area is now a mixture of groups of mature trees, polesized growing stock left in the openings, and clearings awaiting new reproduction. The pine, spruce, and aspen sawlogs have been used for farm construction.

O ur most promising stands are in the areas too young to be cut in the 1930's. These old pastures support 40-60 year old even aged growth. We have cut nearly all of the grey birch for plugwood and firewood to get rid of this short lived crown competition. The balsam fir is mature and often overtopped, so we leave only the most vigorous trees if they are not crowding more valuable species. We are aiming for a residual stand of pine, spruce, ash, rock maple, white and yellow birch, basswood, oak, and white cedar, with preference given to ash, pine, birch, maple, and oak. Low value species such as red maple, elm, aspen, and cherry are removed for firewood; cedar is thinned for poles, posts, and rails to leave the best trees for future
sawlogs. Shade tolerant cedar and rock maple can be brought along under ash, pine, and birch if lightly released from competition. We prune selected pines, ash, birch, and maple, and will also prune the best cedar. We can go to 22-24 feet in height if the tree quality warrants, and often start pruning 3-4 inch diameter trees when they can be clearly identified as future crop trees. We have pruned white pine up to 20 inches in diameter or larger and we think clear pine competition. We prune selected pine, ash, birch, and maple, be 20 inches in diameter or larger and we think clear pine will become a premium priced wood. Larch or juniper is a tree of many uses. The lumber is stronger and more rot resistant than hemlock, and ideally suited to barn flooring or sills. It makes good fence posts or barn poles and the leftovers can be sold for pulpwood or burned in the wood stove. Unfortunately it is often short lived and subject to a sawfly that defoliates and kills the tree, so we have had to cut most of our's. It is usually the tallest tree in any stand.

Our management can best be described as one of evaluating and selecting each tree or small group of trees on their individual merits. We want to hold each tree as long as it remains vigorous, until it reaches its greatest value, and as long as it occupies its space in the stand to the best advantage. When starting work in a specific area we first pick the best and highest value future crop trees, perhaps marking them at breast height with a spot of yellow paint so we can best visualize the future stocking. Then we start felling the most obvious ones to be removed to release these crop trees on at least two sides of their crown and to facilitate the removal of those that need salvage cutting. The larger trees must be felled carefully into preselected and cleared “lies” to minimize stand damage, and often require a little push with a tractor blade or pull with a winch to coax into the right spot. With the largest trees out of the way, we can continue our thinning to leave at least three to six feet between the crop tree crowns. This allows sunlight to reach most of the crown and speeds the tree’s growth response. If we have time, we cut down all the small suppressed and poor quality trees beneath the crown level of the stand to get them out of the way. Smaller ash, maple, oak, cedar, and spruce can often be developed and brought along under the main canopy if they are given a chance. If surrounded by larger poor quality trees, they can be left after the former are cut to see if they can develop and they also serve as partial shelter for a new generation of reproduction.

If an area has nothing of value, it is time to clean it out and start from scratch. Very often a spindly and misshapen ash, oak, or maple can be cut off and a better and more vigorous sprout will develop from the same root system to restock this space far more quickly than a seedling could. To remove undesirable trees such as grey birch, beech, and red maple, they should be cut in mid-summer to reduce the vigor of the resulting sprouts. Winter cut stumps will sprout vigorously since the stored food has been returned to the roots, so this can be used to advantage to regenerate oak, ash, and rock maple sprouts. With our easy access, we can thin lightly and salvage and then return again when we have more time to continue thinning. We often leave groups of ash, oak, or birch that have almost reached boltwood size after only a light thinning to remove the poorest trees. Boltwood markets for six to eight inch materials are far more lucrative than firewood, so it may be well to wait a few more years in such instances to get more out of our thinnings.

We also try to keep track of and control what is happening in our young 10 to 20 year old stands. These areas can benefit from thinnings as soon as the crowns begin to crowd each other. Early treatment maintains vigorous growth and pruning keeps stems straight and stimulates height growth. One 20 year old ash stand is now over 45 feet tall and has four to five inch diameter crop trees. An older area twice its age that had never been thinned is taller but no larger in diameter and is responding much more slowly to a thinning made five years ago. We have cut ash 13 inches in diameter, 70 feet tall, that were only 42 years old and showed even growth rings of about a half inch width for much of their life. The growth potential is there in many species if they are given half a chance, so we are particularly interested in following the development of our younger stands.

We have nine 1/10 acre plots selected to monitor growth in varying stands. Individual trees are remeasured every five years to keep careful track of diameter growth and see how individual trees respond to our periodic thinnings. At this point we think that stands can be thinned at five to ten year intervals.

Careful marketing is the key to making this intensive management possible so that there is a good market for everything cut. Our logs have always been used on the farm but we now have a 20 by 50 foot lumber shed where we can stick, pile, and air dry rough lumber custom sawn from our
logs. Where spruce and fir logs bring $85 per MBF (thousand board feet), you can realize at least $110 after custom sawing costs (usually $50-60) by marketing dimension lumber for $160 plus benefitting from the 10 percent or better log to lumber overrun. White pine logs bring about $100 MBF but where number 4 common may bring $150, number 1 and better can bring $500 or better when air dried for a year. Many people prefer the full dimension and greater strength of rough lumber especially for barn and shed construction and it is cheaper than finished lumber. We save our big spruce for orders of 4x6, 8x12 and other hard to find timber dimensions, and get better prices, too. Our best market for cedar is 3 A inch live edge stock for boat building. We cut 16 to 20 foot logs down to a five to six inch top diameter and they often saw out about twice their log scale. At $250 per MBF less $60 sawing, these logs are worth $380 per MBF to us while most mills will only pay $60 to $80 for them, if they take them at all, for logs or shingle stock. My buyer says that he can hardly find good cedar any more and that the brass hardware in his boats costs more than the lumber. We are both happy with this arrangement. We have also sold some cherry, butternut, basswood, and rock maple lumber to furniture makers, rather than put it into firewood.

Aspen makes good boards for roofers and attic flooring; hemlock and larch are excellent as floor planks; elm makes durable ramps and heavy plank; cedar is fencing material as well as lumber; and virtually anything can be converted into pulpwood or firewood. Some hardwoods such as birch, ash, rock maple, and oak are worth far more as boltwood and may bring $50 to $70 per cord down to six to eight inch diameters. We usually sell 20 to 30 cords of firewood a year without advertising, ranging from green four foot grey birch at $32 to split and seasoned fitted fireplace and stovewood (cherry, maple, beech, ash, and oak) for $60 per cord. The firewood market will get better as people become more energy conscious and oil prices rise. Our dead stubs and odds and ends are run through our Jotul stove to provide house heat and wood ashes for our crop-land.

Wood product prices have gone up over the past eight years. Spruce-fir pulpwood has moved from $20 to $37 and many Maine mills are currently expanding capacities. With the spruce budworm posing a serious menace, there could be serious shortages of quality long fiber pulpwood several years hence when this new mill capacity is ready for full production. The wise tree farmer may want to keep his spruce and fir as long as possible to anticipate this situation. Four years ago ash and oak boltwood for lobster trap stock sold for $40 a cord. Rising demand and declining supply has driven prices to $70 and higher. Ash logs have always brought a premium, and good white and yellow birch veneer logs are growing scarcer. High grade pine logs are hard to find and the day of selling logs by grade may not be far off. These quality products are going to rise in value faster than pulpwood and may be an excellent inflation hedge. We feel that our lands under this intensive management can return many times the income that stumpage alone can provide. Some will be ordinary income for our logging and marketing labors but the greater stumpage values that we are creating can be treated as capital gains and return of capital.
The nights are quick with wings. In the lengthening dark, you can hear small, tentative calls, and across the surface of the full moon sweep the forms of birds.

Out from the high north come the boreal birds, the phalaropes, the plovers, the ducks and the geese, as their nesting grounds succumb to ice. Above the tree line, the ptarmigan remains, its feet feathered to keep it from sinking into drifts, its plumage, snow-white. The arctic tern has begun its buoyant flight to the south. This slender, compact bird which cries over the sharp wind, and skims the air above the waves, can fly a hundred miles a day and cover 22,000 miles in a year.

Day and night, geese move down. Spread out behind the old, wary birds, the young rest an outer wing on the wake of air spun off by the bird ahead. Slowly, the lines shift together and apart, and the V reforms, giving rest to the other wing. It is a journey of risk. In the spring and fall, storms checker the flyways and blow many flocks out to sea. Exhausted, and with no place to land, they perish. For some, there are gunners crouched in the high grass at marsh edge. There are towers stretched invisibly into the dark. And, most important, there is the exacting requirement of wire-tight strength. Eighty per cent of first year birds do not survive into another year. Yet, in spite of the odds, migration is one of the most successful adaptions on earth.

by Susan Shetterly
INTER

To Spring

The two great flyways of eastern North America are the Atlantic shore line and the Mississippi Valley. Down them move erratic flocks, by the hundreds and thousands. Some species follow the islands of the Carribean into South America. Others keep to the shore's edge into Mexico and down Central America. Still others, including many warblers and the ruby-throated hummingbird, dare the great open waters of the Gulf.

For countless generations, men have looked into the fall skies and have seen birds fly away from them. They did not know where they went. Some guessed they flew to the moon. Others believed that they circled the globe and returned in time for spring. They saw the swallows in fall dive beneath the water. There, they said, the birds clung bead to bead, in a dark and glistening ball, and passed the winter safely, unless a careless fisherman pulled them up in his net and melted them down to swallows over a fire. Scholars suspected that many birds hibernated during the winter season. It has been lifted from rock crevices, cold and limp, and revived with heat. Its relatives, the hummingbirds and the swifts, are also capable of slowing down body metabolism. The hummingbird does this nightly. Without doing this his sleeping body would waste its small, intense energy, and he would die before morning.

There are two theories of the origin of migration in which the last ice age played a central role. The first is that birds populated the great land masses of the temperate zone before the glaciers pushed down from the pole, driving before them all life, and the rubble of mountains. As the glaciers inched southward, birds retreated. Species which survived the protracted cold found safety in equatorial forests. When temperatures moderated and glaciers lost their hold, birds ventured back to their ancestral homes, and returned south only to winter.

The second theory is that birds originated in the tropics. From North America, the land mass funnels south to the equator. Equatorial populations of birds are dense, and as they increased, competition for food and territory became intolerable. Some species began to venture out during the nesting season when food requirements are the highest. They went as far as the retreating glaciers would permit. Each fall, they returned to their first homes, to escape the cold.

Both these theories are compatible. As the glaciers crawled south, the boreal birds retreated. As the ice melted, tropical birds came north with the others. Tanagers, hummingbirds, and orioles are examples of tropical birds which have extended their ranges.

It is not over yet. A warming trend will bring new species, often the youngest birds, north into unknown territory. When southern populations become too dense, and as people continue to open up the great boreal forests, individual birds will pioneer.

Year after year, most birds return to nest and raise their young in the same localities. For many, wintering areas are as precise. Radar, planes, transistor radios and a variety of experimental cages have been used by scientists to learn how birds make their way over vast stretches of the earth. They have found that there are two types of orientation at work. One is specific. The other is general.

Homing experiments have been done to test the visual memory of birds. It is known that birds see differently then we do. At once, they are able to see a broad area in crisp detail. Within that area, they are able to discern slight changes and movement. Birds have been removed from their nesting areas and taken hundreds of miles away. Circling in ever widening spirals, or zig-zagging in a random pattern, they search for landmarks they remember. “Home territory” is vast for a migratory bird. Once a landmark is spotted, it is able to quickly readjust its course, and in astonishing speed, return home. General orientation guides birds through unfamiliar territory, which for some species, can mean miles of open ocean.

Birds set direction by the sun. Experiments have shown that birds know where the sun should be at each daylight hour and place themselves in relationship to it. This puzzling ability scientists call an “internal clock.” At night, birds use the stars. If they can see the stars on an early spring night, migratory birds will set north. It is not understood what birds cue on in the night sky. Perhaps it is the North Star, and the huge area of northern stars which remains relatively stationary. If so, the recognition of star patterns must be a genetic inheritance.

The roll of winds from west to east may help birds set a course and so may the decreasing speed with which the world turns as one approaches the poles. But some scientists hope to prove that birds detect the earth’s magnetic field. Often birds do find their way safely through fog and overcast skies. When sun and stars cannot help, something else does. We do not know what it is, nor how a bird can interpret such subtle, complex information. As the hours of daylight shorten, migrating birds become restless. Changes in body chemistry begin. Fat is laid down in the cells, and the gonads slowly diminish in size.

But it is neither the short days nor the hormonal changes, the lack of food, nor the cold which finally triggers that fast bunching of a flock, that lift to an altitude of 1500 feet or more, and that purposeful pulling away from familiar territory. We still do not know what forces a bird to pick up and leave. Yet, here they are each early morning—new migrants hopping among the dark branches, or stepping with long, thin legs in the receding tide.

Al Martin, the naturalist from Great Pond, believed that some ruby-throated hummingbirds sought refuge and a warm ride south in the down feathers of migrating geese. We cannot say it is myth, or fact. But, in the mind’s eye, when geese cross overhead, I see the curled and sleeping figure of a tiny, brightly colored bird.
to the lungs and to the skin. A hot angelica bath is a kind way to treat yourself anytime, but try it definitely when you’re treating a cough or a cold.

As far as the culture of angelica goes, it thrives best in a moist, deep soil, in a shady place... "and loves to grow near water," Mrs. Grieves points out, writing in A Modern Herbal. "Although the natural habitat is in damp soil and in open quarters," she says, "yet it can withstand adverse environment wonderfully well, and even endure severe winter frost without harm."

It’s difficult to propagate angelica, however, without fresh, ripe seeds, since the germination capacity rapidly deteriorates in the seeds as they grow old. Since fresh seeds aren’t likely to be available, the best way to start a patch of angelica is to buy a plant. From this plant, usually in the third year, the flower stalk will appear. Keep the stalk cut to enable the plant to develop off-shoots — which should be separated and transplanted to a distance of about two feet apart. To keep angelica as a true perennial it becomes necessary to keep the stem cut, for once the blossoms form the cycle of the plant is complete. Always allow a few of the plants to bloom, however, for their spectacular show, for the bath. And, of course, for their seeds, which, once the patch becomes established, will self-sow.

Sweet Cicely is Easiest to Compare with Angelica.

The flavor and culture of cicely and angelica are quite similar. The best way I know to start sweet cicely is to buy a plant — unless you can get seeds that are new; otherwise, like angelica, the germination rate of old seeds is very low. Still it self-sows easily once the patch becomes established. You can naturalize a patch of it especially in some damp, shaded located. However, Sweet Sis, as it is affectionately called, does well in the greatest variety of situations. I have found it flourishing in city gardens, in back yards, and about the edge of woods. My own patch heavy-crops from the midst of a veritable jungle of forsythia. According to what I am told, though, in southern Florida and all along the Gulf Coast it is most difficult to grow. This is because the seeds germinate through a process of alternate freezing and thawing.

The choicest part of sweet cicely, as far as I am concerned, is its thick root, which, when eaten raw as a food also has medicinal benefits. It is listed in many of the old herbals as an aromatic, stomachic, carminative, and expectorant, which my own experience bears out. It is a gentle stimulant for the appetite, and soothes what The Rodale Herb Book calls a “debilitated stomach.” The great white root can also be scrubbed and steamed, to be served like carrot. Unlike carrot, however, its sweetness is pronounced with the flavor of anise. People who are accustomed to eating the usual vegetables will be pleasantly surprised.

The leaves of Sweet Sis are one more delicious part. They are almost identical in both appearance and taste to chervil, an herb which goes often by the name of “gourmet parsley.” The leaves can be used fresh in salads, or to flavor soups and stews. Also, they can be used as a garnish and chewed separately.

The cleanest taste of licorice I have ever experienced comes from the fruit of sweet cicely — or the “seed” as it is usually called — which mature larger than most. The best time to eat them is in their milk-stage. They should
be steamed though only briefly, as you would new peas, and served in a bowl, buttered, and touched with just a pinch of herb. These seeds are also absolutely delicious crushed and served as an ingredient in salad dressing, or even used to flavor warm milk, for whoever likes a pleasant bedtime drink. This is good especially for small children. For a fussy appetite add a spoonful of honey. Old people also will appreciate this nightcap. Gerard in his early English herbal says that the fruit of sweet cicely is “very good for old people that are dull and without courage; it rejoiceth and comforteth the heart and increaseth their lust and strength.”

You'll Love Lovage

To say simply that lovage is wild celery doesn't nearly do this plant justice, or else it would probably have been called wild celery in the first place. Lovage is much more accurate—or love parsley, as it has been called. It is certainly safe to say that whoever likes celery will love lovage.

Here is a plant which is native to Liguria, in northwestern Italy. The Greeks discovered it centuries ago. They were fond of its sweet, aromatic roots and pleasantly flavored fruits—as were the Romans, who, it is said, introduced the plant into England. Today lovage grows wild on the seacoast in parts of Scotland, and I know where a patch grows on the coast of Maine which could be considered wild also. Undoubtedly it was once cultivated, perhaps a hundred years ago.

Lovage is one of the hardiest perennial vegetables to grow, and one of the most reliable. In the springtime its roots put out like some tremendous storehouse of energy, a revitalizing supply of greens which can be picked and picked. A well-established plant of lovage will attain a height of six feet in one season.

Lovage is an easy plant to start from seed. It also propagates well by root divisions, and a well-established plant can actually benefit by having pieces of it separated. One very old writer who was impressed by the virtues of lovage says it “joyeth to growe by wayes and under the eaves of a house, it prospers in shadowy places and loves running water.”

Although the stalk and the large green leaf of the plant are the parts which please me the most, used for soups and in salads, according to Parkinson, “The Germans and other nations in times past used both the roote and seede instead of pepper to season their meates and brothes and found them as comfortable and warming.”

Skirret is Known as Sugar Root

Skirret is an intriguing little food plant which is native to China. It has little roots which appear in clusters resembling a smaller version of parsnips, though they are crisper and in my opinion much more fun to eat than parsnips. “This is the siser or skirret which Tiberius the Emperour commanded to be conveied unto him from Gelduba, a castle about the river of Rhine,” says Gerarde, writing in his early English herbal; and Evelyn, writing at about the same time, informs us that they were “so valued by the Emperour Tiberius that he accepted them for tribute.”

“Hot and moist . . . exceedingly wholesome, nourishing and delicate,” is the way Evelyn describes them. And on it goes. In 1682 Worlidge declared skirrets to be “the sweetest, whitest, and most pleasant of roots.”

The best way to start a patch of skirrets is to buy a plant, since the germination of skirret seeds is a sometimes proposition. My own patch grows just outside the kitchen doorway, where it can be reached with ease, for besides the roots the skirret leaves are also delicious. Skirret is a member of the parsley family, and its foliage can be used in all the same ways as parsley, with pleasing results. Under the best conditions—meaning a moist, loamy soil in the direct sun—the whole plant grows to a height of up to four feet, topped with umbels of white flowers. But under various growing conditions skirret exhibits the same versatility as other hardy perennials. A second patch I have produces bountifully in dry soil in a partially shaded woods place. The only difference is, the roots in this patch are somewhat smaller. Nevertheless, they taste great!

Sources—

Fall is the best time to start a hardy perennial vegetable patch—whether for the planting of seeds which need to be cracked by a hard freeze in order to germinate, or whether for setting plants, which suffer the least shock to their root systems when moved during their dormant state. There are three good sources which I know for hardy perennial seeds and plants:

Howe Hill Herbs
Camden, Maine 04843

Nichols Garden Nursery
1190 North Pacific Highway
Albany, Oregon 97321

Redwood City Seed Co.
P. O. Box 361
Redwood City, California

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Source: Farmstead Magazine, Volume 45, No. 4, Fall 1982

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Main Street
Ellsworth Maine
667-8675
A Saxon warrior, plagued by chilling visions of impending death, consulted a wise man to find out how he could stop the haunting nightmares. The wise man informed the warrior that he was in danger of death by poison at the hands of a host. The wise man advised him to gather the roots of the parsley plant during the time of the full moon and to present a cutting from the plant as a gift to each dinner host. The magical powers of the parsley plant would serve to counteract the poisoned food. As a result of this ancient legend, the presence of parsley on any dish became a symbol of good faith toward dinner guests.

The livelihood of most ancient cultures was based on agriculture. As man developed ideas about gods and spirits, good luck and bad luck, it was natural that many of these ideas would become connected to superstitions and customs associated with plants. The collection of these myths and beliefs served to make sense out of nature and man’s own existence. The life cycle of vegetation explained the mysteries of the seasons, death and rebirth, and fertility. Through this association it is no wonder that plants became the symbols of luck, protection against evil and predictors of the future.

As certain plants became associated with random occurrences, superstition about the plant served to explain the mystery. For example, in the province of Harima in Japan, it is very unlucky to grow chrysanthemums. The roots of the superstition are in the legend of O-Ki-Ku (Chrysanthemum flower), a young Japanese girl who committed suicide. O-Ki-Ku lost one of the ten golden plates her master had entrusted her with and chose to end her life rather than face her master. It is believed that her ghost returns each evening to count the nine golden plates.

Many plants became connected to legends and myths because of their appearances. The ancient Egyptians believed the onion to be a symbol of the universe because it was built layer upon layer. In Japan, the long sharp needles of the pine trees are said to have the power to drive evil spirits away. Other plants owe their magical powers to their color and scent. The Mexicans call marigolds the death flower. They believe that the reddish brown spots are the blood of the Indians slain in Mexico by the Spaniards. Ancient Egyptians believed the black spot on the bean to be a mark of death. Plants with strong
scents have many kinds of curious powers. The pungent odor of the garlic plant is effective in keeping vampires away, while the odor of the onion will ward off infection.

Many of the myths connected with plants are universal and others exist in various forms in different parts of the world. For example, the apple appears in the fables of many races. It was the forbidden fruit of the Garden of Eden, the wedding gift of Zeus to Hebe, the prize for beauty offered by Paris, borne in the hand of Aphrodite, grasped at in hell by Tantalus, poisoned for Snow White and pierced by William Tell. It is little wonder that the apple came to be regarded as a magical fruit.

Some of these beliefs, once so strongly held, reveal the origins of modern ideas and customs. Parsley is still used today as a garnish for many dishes, notwithstanding its purported power to counteract poison. Certain flowers are still associated with our wedding and funeral rites. Although the origins of these customs are often hard to trace, the folklore of all peoples sheds light on history and helps us to understand the roots of our own thinking. Bits of magic are rooted in your garden, a virtual cornucopia of superstition. Here is a harvest of some of the centuries old beliefs associated with garden vegetables.

**Beans** — Beans have long been associated with death and ghosts. In ancient Rome, beans were eaten at funerals. On the other hand, the Egyptians believed that beans contained the souls of the dead and therefore should not be consumed by the living. In England, the pungent scent of the bean flower was said to cause lunacy and terrifying visions. For those brave souls willing to risk a nightmare there was some medicinal value connected with the bean plant. It was commonly believed that the white lining of the bean pod if rubbed on a wart, would cause the wart to disappear. The American Indians placed beans in their rations to frighten away evil spirits who entered the bodies of the sick.

**Peas** — If an unmarried girl places a pod with nine perfect peas on the ledge over the front door, the first man to cross the threshold will be her future husband. A pod with a single pea or with more than the usual number is a sign of good luck.
Rosemary — Rosemary is believed to strengthen the memory. In Wales, if rosemary flourishes in the garden it is a sign that the woman rules the house.

Maple — When the maple trees are first tapped in the spring and the sap is sweet, there will be a short sugar season. If it is not sweet there will be a long sugar season.

Oak — The oak tree was sacred to many ancient cultures, including the Hebrews, the Druids, the Greeks and the Romans. Because it is the favorite abode of fairies it is considered unlucky to cut an oak tree.

Pine — The pine cone was used by the ancients in the worship of the goddess of love and was believed to have great healing powers.

The folklore of herbs is closely associated with folk medicine. By trial and error, men soon learned that some plants soothed the nerves while others would cure toothaches. Sometimes the very belief in the cure would cause the ailment to disappear. Today, some herbs are used as ingredients in modern medicines. The following herbs held magical powers beyond those associated with healing.

Dill — If you hang a clump of dill over the door it will keep out those who do not like you or those who would harm you.

Catnip — Catnip when chewed will cause you to quarrel.

Sage — The ancients believed that sage soothed the nerves and prevented baldness.

Thyme — Thyme growing in the garden is a symbol of the grower’s courage and activity.

Flowers too became symbols of the unexplained and charms of good fortune. Much of the superstition connected with flowers is associated with the color and scent of the blossoms, or with the unique appearance of the plant.

Thus the ghostly appearance of the iris and the sorrowful look of the daffodil may have caused them to be associated with death. The tulip, which is Turkish for turban, was named for its appearance and became a symbol of luck for the Turks because of this association.

Here is a bouquet of superstition about common garden and field flowers:

Aster — The Romans made wreaths for the altars of their gods from the blossoms of the aster. They also believed that the scent of the burning leaves would drive away mice and snakes. The American Indians boiled the roots of the aster and used the liquid as a remedy for diarrhea. They used the flowers and stems to make a rheumatism lotion.

Bleeding heart — If you crush the blossom of the bleeding heart and red liquid flows, it is a sign that your beloved loves you in return. If white liquid flows, it is a sign that he loves you no more.

Buttercup — In England, the buttercup was called the insane herb because its odor would make you go mad. Hold a buttercup under a person’s chin; if a yellow reflection is cast, he likes butter.

Chrysanthemum — In Chinese lore, chrysanthemum tea was thought to drive out the devil of drunkenness.

Columbine — Columbine was used as an ingredient in a popular remedy for the plague during the Middle Ages.

Daffodil — If a daffodil grows with its head hanging to one side it is an unlucky sign. The ancient Greeks planted daffodils on the graves of their dead and used them as a charm against sorcery.

Daisy — It is unlucky to transplant a wild daisy into a cultivated garden. By pulling off the petals a girl can tell if her loved one loves her in return, by saying “he loves me, he loves me not”; or she can tell for what reason her lover will marry her, by saying “for position, for wealth, for passion, for affection.” The last petal tells the story. Throw the yellow centers into the air and the number of yellow bits falling on the hand will indicate the number of children you will have.

Forget-me-not — In Europe, those who wore the blossoms were assured that they would not be forgotten by their lovers.

Iris — The Greeks planted irises on the graves of their dead women to assure that the goddess Iris would guide the women’s souls to heaven. In England, if the root of the iris grows upward, it will attract all thorns out of the flesh; if the root grows downward it will cure wounds.

Apple — If an apple falling from a tree hits you on the right shoulder it is a sign of good luck; on the left, a sign of bad luck. If an apple peel is thick, prepare for a long cold winter. An apple that is one color on one side and another color on the other side is a sign of a division in the family.
few of us are happy in the thought that the product of man's skill in manipulating such commonplace materials as clay, lime and sand can even occasionally be possessed of such innate contrariness as a bad acting chimney. It seems strange that a change in the direction of the wind can make the difference between smiles and contentment, and tears and discomfort to those whom the chimney was created to serve. Perhaps even more exasperating is the ordinarily well-behaved chimney which decides to give a demonstration of its temperamental vagaries on a day or occasion when the need of the best possible service is peculiarly urgent.

We have evidence that chimney building is not yet an exact science for certain chimneys assume the right of independent action; often they were built of the same material and by the same craftsmen as other chimneys that have for years done their full duty with never a suggestion of the presence of an inferiority complex. It seems that law-abiding chimneys may be built by either standard or by hit-or-miss methods for the ratio of successes to failures in either case seems surprisingly similar. However, we must not assume that a chimney may be built any old way even though we harbor a slight suspicion that at times "Fools' Luck" may be about as dependable as real chimney wisdom.

The lack of an ample supply of air at the fire end of the chimney is the cause of many failures commonly blamed upon the chimney itself. The top of a chimney may be so much lower than a near-by ridge, part of a building, or a group of tall trees that eddies of wind blow down the chimney and force puffs of smoke back into the room. Chimneys built from architects' plans and specifications or in a city in which building laws are strictly enforced are well protected but perhaps more than half of our population live beyond the range of these benefits. Those contemplating the building of modest homes or summer refuges in small towns, in villages, or in the rural districts without assurance that expert service is available, should know enough chimney philosophy to keep tabs on the progress of the work, for chimney permanence largely depends upon the thoroughness with which the craftsman fills the joints with mortar.

Unless rocks of suitable shape and size were available our pioneer ancestors used the most convenient substitute and built their first chimneys with sticks thickly plastered inside and out with clay, sometimes laying stones as high as the fireplace if no more were available. Chimneys and log-houses similar to the sketch (1) which have sheltered several generations may still be found in remote districts, their contemporaries having either decayed or burned because chimney inspections and repairs were neglected. As frontiers were pushed further on, the frame house supplemented the cabin for it marked a step in both economic and social progress. In such houses thousands of chimneys were built upon plank platforms supported as shown (2) and well braced to the frame of the house. Often the chimney was built upon a frame (3) supported from the sill of the house, which in turn rested upon a stone or post foundation. "Not safe" we hear someone say: perhaps not according to building laws, and insurance inspectors' opinions, but the significance of the word "safe" depends upon whether simple safety or super-safety is considered safe. Thousands of such chimneys, built three or more generations ago are still in active service and more are being built in modest dwellings beyond the pale of building ordinances. It would seem that the safety of these chimneys would stand comparison with the same quality in others, for it is not an unheard of thing for a recently built modern house to van-

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ish in smoke because of a defective flue. If we can forget the ideal of super-safety we can easily convince ourselves that if the support is strong enough, if protected by sheet iron under the lower course of brick, and the chimney itself is well built, this chimney is safe enough for a light building, especially if bricks are as expensive and as hard to get as in some localities.

Ceilings and partitions are sometimes built closely against the sides of a chimney, and walls, ceilings and chimneys plastered at the same time. After a year or so the plastered corners will crack and break away (4) because the difference in the rate and direction of expansion and contraction of both the brick chimney and the frame of the house will inevitably break plaster joints. Another method is to nail strapping upon the chimney and lath and plaster thereon; (5) this is little if any better, for the plastered angles will break about as badly for the same reason. The correct method is to build the frame by placing 2-inch by 4-inch studding flatwise 2 inches from the chimney and lathing and plastering as shown (6).

Another method of unwise economy is the building of a chimney by placing bricks edgewise, (7) for the element of safety is practically non-existent, yet houses with such chimneys have stood for years, the result of propitious fate rather than of any constructive merit in the chimney, for many other such chimneys have been responsible for fires which burned the houses down. However the same sketch shows such a chimney built around a terra cotta or fire clay lining which makes it less unsafe. If a chimney must be built in a restricted space during repairs we may place the lined chimney in the safe category, but all joints must be well filled with cement. The form of the top or cap influences the safety and efficiency of the chimney; a cement top (8) of the form shown built above the tile lining will prevent water from entering between the bricks and the lining which would soon wreck the chimney. Such a top tends to divert the wind as suggested which will help the draft appreciably.

The ancient custom of pargetting (9) is still followed to some extent in the belief that the smooth surface helps the draft, but the owner of the house should insist that all plumb joints be entirely filled with cement and pargeting omitted, for often when that drops or scales off some of the mortar in the joints will come with it. This may leave a crevice that will reduce the draft and offer a passage for sparks; eventually we have a defective flue. A pargeted chimney is not acceptable in any place where building laws are in force.

Two examples of bad construction (10) illustrate a method of framing still followed in some places where building laws do not interfere. The construction at A protects the ends of the timbers from sparks for a while but the capacity of the flue is reduced 25% for no chimney has greater capacity than its smallest area. Both methods are affected by the expansion and contraction of the building and chimney which may open dangerous cracks between the bricks. The method shown at B is as bad as it can be, but it has been used. In short no part of the frame of the house should rest upon the chimney. The construction of the floor should be similar to that shown (11) in which there is no connection between the chimney and the frame of the house.

The chimney of the stove-heated house (12) has for more than forty years escaped some of the penalties of ignoring chimney philosophy; with eight stove connections the chimney certainly strains the idea that each connection should have its private flue. The house is built upon a side hill which permits a basement tenement. Ordinarily the chimney gives satisfactory service for seldom are more than two or three openings in use at once, but when a high wind blows over the hill-top an occasional down draft blows smoke back into the various rooms, but not worse than in neighbor-
ing houses in which the chimneys were built with due regard for chimney efficiency. We must conclude that this is simply an instance of chimney temperament, perhaps some would call it a dispensation of Providence.

The offending of the rule regarding placing flues opposite each other (13) brought dire results. The builder took a chance for it seemed that all things considered there was no better way to serve the one-story ell kitchens of a double house. One kitchen range behaved itself with perfect courtesy no matter how the wind and weather conducted themselves, but the range in the other kitchen seldom allowed any one to stay in the room until long after the fire was lighted; whether the first range was busy or not made no appreciable difference. The owner in desperation, but with little faith, followed a suggestion and had a galvanized iron chimney top make as shown. It was brought to the house just as the house mother had built a fire in her range and retreated to the back porch until the smoke had assumed a texture that would allow her to return. The instant the chimney top dropped into place the smoke in the kitchen seemed to tumble over itself as it was drawn through the open draft of the range until in a few minutes there was no trace of smoke in the kitchen, nor has the chimney since behaved itself in any manner the most meticulous could criticize.

Many flue connections (14) have been made by placing a stove pipe thimble from the flue to the face of the plastered wall. In time pin holes made by the action of smoke chemicals will appear but these can be seen only by drawing the pipe out of the chimney and inspecting it, which is seldom done, for its safety is taken for granted until a fire starts from the dust that settles upon the iron thimble. This is likely to happen on a cold day when the stoves are being pushed to their utmost and a defective flue is blamed for
A bad smoker and how it was cured

A want of a more convenient scape-goat. Instead of the iron pipe a thimble of vitrified drain tile should be used, for this will not be affected by smoke acids nor will it become so hot as to endanger the house. Often in setting up a stove, a length of pipe will be pushed into the flue as at C which shuts off the draft and the innocent chimney is blamed for the smoke that backs into the room.

In building any chimney it is wise to leave its outside exposed wherever possible in the basement, in closets and in the attic, for at best a chimney is more or less of a gamble; once built, thorough inspection and repair are out of the question in most homes. A newly finished chimney may be given the smoke test by covering the top tightly, stopping all flue connections so no odor can pass out and building a smudge fire of oily rags in the bottom of the flue. Smoke leakage may then be tested by the odor but repairs may be made from the outside only unless so near the top that the chimney can be taken down to the leak and rebuilt if a bad leak cannot be reached otherwise. Sometimes the oil of peppermint or other pungent liquid or gas is used instead of the smudge. The flue itself may be inspected for stoppage or for the accumulation of soot (15) by using a small hand mirror as suggested.

Every chimney should be fitted with a cleanout (16) near the bottom for the accumulation of soot, scale and perhaps of bird nests should be removed occasionally or the flue may become filled to the lower connection when trouble is near at hand.
Winfield David Grindle holds an honored position in Penobscot, Maine— he’s the oldest citizen of his town. He is 89 according to his calculations, or 90 according to a recently found family bible. Winn has lived in Penobscot all his life. In his early days, the turn of the century, Penobscot was far more active than it is today. An independent community, Penobscot’s businesses included a number of hotels, a tailor shop, funeral parlor, barber shop, blacksmith shop, a stave mill and cooper shop for barrels, general stores, dry goods, a milliner, and a knitting business. Ships sailed to Penobscot’s shores for lumber and bricks.

At that long ago time, most people made their livings within the town’s limits. Winn made his living in Penobscot driving oxen. Working independently, he used oxen to plow, mow, and haul for others. A life-long bachelor, Winn began living with another family and working for his keep at the age of nine. At fourteen years of age Winn went to live with the family of Groves Leach, and there he stayed until 26 years ago. Besides being good with a team of cattle, Winn is an accomplished marksman. He hunted deer all his life and got his last one while in his 80’s. He has done blacksmith work, and has worked in the woods. Winn also likes to recall that he owned his first automobile in 1922, a brand new Ford, for which he paid $510 cash!
In Penobscot there is a gold-headed cane given to the oldest citizen of the town. Winn has it now. "I keep it hung up by a string so it won't twist. Boston Post put that out. I don't know how old it is. A good many's had it. The Boston Post's been discontinued a good long while...long, long while. See that's been handed 'round to lots of different ones. A lot of 'em had it in town here before I had it. Marston had it. When he passed out, the selectmen gave it to me. I should say somewheres near four or five years ago."

We looked at Winn's collections of old photographs. Winn brought a picture out saying: "There's my father's picture. He never shaved in his life. He went to sea all his life — a sea captain. Didn't he have some whiskers!"

"I've got a lot of pictures of ox I've had. We used to use them all the time, mow with 'em." I asked Winn if he'd advise people to use oxen today. He replied, "Yes." He said "Three years ago I's out ta Winsor Fair, they had 100 pair of oxen and steers." In his opinion there are no great advantages to oxen over work horses. "They're a good deal the same." Winn has used work horses, but says, "We always had two pair of oxen." Groves Leach, the man who's family he lived with, had a pair and Winn had a pair of his own. One picture shows a team of oxen mowing with wire masks over their mouths. "Them masks are to keep 'em from feedin'," Winn says.

Coming across a group picture Winn explains: "That's us up here at the old Wilson School House — the first term I ever went to school. I was just a little fella, see. I left home when I was nine years old." More pictures showed the neighbor kids crowded around Winn at Christmas time. School photos of the same children, and another very old picture with a team of cattle hitched up to a cart and two girls. "There, two summer girls up here to North Penobscot. They stood up there on the cart. They wanted a picture with the oxen. They took my name and address. When they went home, they sent me that picture."

Asked how many pair of oxen he's had, Winn replied: "Oh, I don't know, probably thirty." You trained your own oxen, right? "Yeah...yep." How much wood did you haul at a time? "Oh, a cord — ten feet, according to the goin'. We used a common work sled." Showing a picture of some very handsome oxen, Winn exclaimed, "Them cattle there, they was dark red! You see how they took." I asked him what his favorite breed of cattle was. Winn said, "We most always had them Red Durhams. They was beef cattle and work cattle both. Those Jerseys and Guernseys, they was small, kept them for milk."

"I stopped school when I was about 15. I never went to school any hardly. They used to keep me home from school to work. I had to work like the devil. I was there much as five years. I went down the spring I was nine years old. In the fall when I was 14 I run away and come up here to Groves'. My brother came down to the school to see me. He was home off the vessel. He called me out. He said, 'When are you going up to see Groves' and Sarah?' I says, 'I'm goin now!' Went right in and asked the teacher if I could get dismissed from school. I forget now who the teacher was. She said, 'Is it necessary?' I says, 'yes.' Took my old hat and come up here. Never went back! Left my dinner pail and everything right in the schoolhouse. What would a young one now think? Nine years old goin' right among strangers? They'd put their folks in jail wouldn't they? It was kinda tough, I'll tell ya! Started workin' with..."
Ox shoes made by Winn on display at Wilson Museum, Castine

Oxen just soon as I come up here. I commenced to raise a pair of steers. Just like horses. You can get a good team, you can get a bad team. If you want a good team, get a pair of outlaws, somethin' nobody else can do a thing with. You get 'em trained, you get a good team — faithful!"

Once Winn and all the other men that he could muster got together and moved a house. "I was 18 years old. The 11th day of January, cold, hauled it right down to the meadow. Was all clear then, froze solid. Seventeen yoke of oxen 'n a pair of ho'ses. Took a day. 'Twas pro'ly better half a mile, maybe three quarters of a mile, cross the road. Turned the house side in, went right up by the corner of the old barn. Groves had a pair of cattle there. Sewall Gray had three pair, George Pert, Ed Leach, Winn Hinckley, Bill Wescott, J.T. Leach up ta Orland, he had two pair. Fred Wardwell, Merle Bridges. After we turned the house there on the meadow, he pushed the horses on ahead. Charles Conary had a pair of oxen there, in there on the back road, North Blue Hill. Gus Kane had a pair there. I'm the only one livin' that I know of. It was a good size buildin', 'bout 28 foot square. I don't know of anybody still around unless its that boy there in the picture had Charles Conary's oxen. We always used to call him Pirate Blaisdell.Yeah, we moved that house the 11th day of January. Left the house there in the dooryard. Next day was a good day. We jacked it up y'know so it wouldn't twist. And the next day after that come on a rain, and we never had no snow after all winter! Used shoes to move it — two sills, y'now."

On days gone by: "Always git up four o'clock, tend to the cattle. I've worked all around here. Worked on the roads. Used to haul from up here by the town dump up to the North Penobscot road. Used to go three loads with the oxen. At night I'd do the chores and go to bed, ready to get up at four o'clock in the mornin' again! That's the way we used to work. At the last of it we used to get about $4.00 a day. I have made 10 cents an hour or 15 cents for yourself and oxen. That's big wages y'know! Everything was cheap — no cars to support. If you wanted to go anywhere you had to walk — by gory!"
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It is not too difficult to make your own down pillows. You need several yards of tightly woven pillow ticking and enough down feathers to fill the pillow ticks.

You would think that feathers are feathers, no matter what kind of fowl they come from, but that is not so. Chicken and turkey feathers, for example, are not good to use. One reason for this is that the feathers have sharp quills, which, when packed into the pillow ticking, have a way of working through. If you must use chicken or turkey feathers, a double thickness of ticking will help deter the feathers from coming through. Chicken and turkey feathers also tend to mat down in the pillow in lumps unless care is taken to shake them up occasionally and to hang them outside in a shady place to air once in a while. Never put a feather pillow in direct hot sun as feathers are covered with an oily base which can turn rancid. The oil comes from an oil bag near the tail that most fowls use to waterproof their feathers.

The best feathers for pillows come from the feathers of ducks and geese, whether tame or wild, and the most expensive pillows are made exclusively of down.

There are two kinds of feathers on ducks and geese; the body feathers, which make up the outside feathers, and the down, which are bits of fuzz which cover the body with a warm cover.

Fowl can be dry picked, but I have not had experience with this method. Also, melted paraffin is sometimes poured over the bird to get the pin feathers and fuzz off, but this would spoil the down for pillows. I prefer the scalding and steaming method as it is easier when you have a lot of birds to dress.

There is also a way of plucking feathers from live geese during the summer when they are molting anyway. Catch the goose, being careful not to get bitten, by putting a paper bag over its head. Pluck out the feathers gently from the breast when they are loose due to molting. It is an extra bonus of feathers, as the geese shed them anyway and grow more feathers for winter.

We had a dressing method that worked well for us. My husband did the killing, usually three ducks at a time. Then he scalded them in water kept just below the boiling point. We found that if the water is too hot, or if the geese were left in the hot water too long, the skin would tear when the feathers were taken off. The scalded ducks were quickly wrapped in a layer of newspapers and a
final wrap of gunny bag and left to steam for a while. When I was ready to start picking the duck, I would unwrap it from its wet cocoon of paper and put it on a newspaper on the kitchen table. I would have a flour bag pinned to a chair near my right hand to drop the feathers in. I developed my own method of getting the feathers off the bird. Rather than picking the feathers off by the handful, which would leave the down still on the bird, I used a rubbing action. This way, as I rubbed my thumb along the body of the bird, plucking both top and bottom layers of feathers, I did a clean job of plucking and dropped handfuls of feathers into the bag. The feathers were dry enough so that they didn't stick too much to my fingers.

I started at the vent under the tail on the breast and worked towards the neck. When one side was finished, I turned it over and started on the back at the tail, plucking or rubbing off the body feathers. The back feathers can be saved too, but they are not as nice as the breast feathers. The quill in the wings and tails can be pulled and discarded, unless the children want them for Indian head-dresses.

With the goose, the first joint of the wings can be cut off with the feathers on it. It can be used as a feather duster. Or the big quills can be saved from the wings and tails. Push the sharp quills into a corn cob to make a toy for the children, which when thrown into the air, whirls on the way down.

Quill pens can be made from goose tail and wing feathers. The quill-end can be cut with a sharp knife to a pen point to be dipped in ink.

I usually put one day's feathers into one bag. When I am through, I tie the end of the bag shut and hang the bag on the line in the shade to dry out. Occasionally I shake the bag so that the feathers do not mat down. It takes quite a while for the feathers to dry enough to use, and sometimes I have six or more bags drying at one time.

Fall is the best time for dressing the ducks and saving the feathers. Getting the feathers dry is not a fast project and the feathers are ready to make up in the spring or summer. Or they could be left for a project for the following winter, as a snowbound day job.

The pillow ticking costs $1.49 a yard now and it pays to get a better quality that is tightly woven, so that the feathers won't work through. Also with care, a good pair of down pillows will last a lifetime.

Pillows are 27 by 20 inches in size, and it takes about two yards of ticking to make two pillows. Of course, the pillows can be made larger or smaller to suit taste.

Sew the ticking up one end and one side and part of the other end, and add the feathers. The fourth side should be a fold.

Pack in enough feathers so that the pillow can be held on the hand with no drooping. Then sew up the opening and the pillow is ready to use.
Foraging wild foods in the fall is fun, and much easier than in the spring. Everything you need for an elegant tea-party spread is either right by the road or has been pestering you in the yard and garden all summer! No need, at this time of year, to wander through swamps, identify confusingly similar first shoots of green, or to hustle to catch an emerging plant before it blossoms. To be sure, you may have to make one trip to the seashore and do a little digging!

I love to have a friend or two come over for an afternoon tea in the fall, to look out at the changing colors and enjoy the first lighting of the woodstove. If I've been industrious on my walks I can offer my guests mint or goldenrod or wintergreen tea; dandelion coffee; and a choice of muffins or tea-bread with black-cherry or rose-hip jam; or spicy Queen Anne's Lace cookies.

First things first; the tea. Any of the mints will make a tasty drink, although I like the wild water-mint that grows all around my front yard. If I've picked some on a hot day in July or August and spread it on newspapers in the loft until it's dry, I can just put a tablespoon of crumbled leaves per cup of tea into my teapot and let it steep five minutes.

Katie Johnson writes and forages in Freedom.
If I haven’t dried any, I can pick fresh leaves and chop them up, half a cup for a cup of tea, and infuse them for five minutes in the teapot. (The dried leaves are much better, I think.) I like to put honey in this. You may use spearmint, peppermint, catnip, or pennyroyal—all mints!—depending on what you have growing near you.

The goldenrods, especially Sweet Goldenrod whose leaves smell like anise, can be gathered and dried in the same way when in bloom. Try mixing some of each kind and invent your own blend. The taste as well as the growth characteristics of all plants, wild or not, vary considerably from soil to soil. Wintergreen, which is available all year, makes a very lightly-flavored tea (unless you steep it as Euell Gibbons describes in *Stalking the Healthful Herbs*—I’m going to try it one of these years) but it is very soothing and should relieve a few aches and pains. It is the only wild thing I know I can find, pick, and enjoy in December! Be sure to keep each kind of dried tea leaves in its own labeled jar, tightly closed, in a cupboard.

My favorite drink is made from Dandelions, preferably the big ones that got away from you in the greens-gathering springtime and have been growing and blooming at the edges of the yard and the corners of the garden. After the first frost or two take a shovel and dig these up: it’s the roots you’re after. Wash them and dry them and roast them in a slow oven until you can snap them in two and they are very dark inside. Grind them or “blender” them and use them in your coffeepot just like ground coffee. As far as I know there is no caffeine in roasted dandelion roots. So much for the beverages.

For jam, the most interesting food in the menu, we need rose-hips, the fruits of the rose. Every rose blossom makes a hip, but the biggest ones I know of grow by the ocean in Old Orchard Beach and are brought to me by a summer resident there when she closes her place for the winter. *Rosa rugosa* makes the biggest ones I’ve seen inland. Size only makes a difference because it is easier to seed the big ones, but the jam will be worth it no matter what size the hips. Be sure they’re ripe; orange-red and not hard. The following is Euell Gibbons’s recipe; quick, delicious, and he says, a tablespoon of this jam gives you your daily requirement of Vitamin C!

Cut off stem and blossom ends, slit the hip and remove the seeds. Put in the blender 1 cup hips, 3/4 cup water, 2 tablespoons lemon juice; blend until smooth. It’s a beautiful orangey color. Add 3 cups sugar slowly, still blending and run it for 5 minutes more after all the sugar is in. In a small saucepan blend a package of Sure-Jell with 3/4 cup water bring it to a boil and boil hard for one minute more. Quickly, pour the blender’s contents into sterilized screw-lid jars (baby-food jars are good): quickly, because it will all jell in the blender very fast. This makes several jars; the ones you’re not eating should be kept in the freezer because it is uncooked. Wonderful tasting as a jam, it is also the most soothing medicine I’ve ever used for a sore throat.

Now we will need some muffins to put it on. If you’re like me you won’t have any trouble finding the *Cheesopodium album*, commonly known as lambs-quarters, whose plentiful seeds make a rich-tasting flour. I eat the white-dusted, unwettable leaves of this relative of spinach from the early spring. It’s a surprising source of protein and Vitamin A. Lambs-quarters grow where the soil is rich, so I’m always gratified to find them in my garden. By the time the cultivated vegetables are harvested, the lambs-quarters plants I’ve let grow are three or four feet tall. The leaves are many and not appetizing, but each branch has a long knob of seeds on the end of it. When these are dry, strip them into a pail or bag. Rub the husks between your hands to separate the seeds out. The seeds can be ground in a flour-mill or in a blender, and the resulting meal used in pancake recipes, half and half with wheat flour, to make a “buckwheat” cake.

Or to make muffins: mix together in a bowl one and a half cups wheat flour, 3/4 cup lambs-quarter flour, 3 teaspoons baking powder, 1/4 cup sugar, one teaspoon salt, 1/4 cup powdered milk. Make a well in these dry ingredients and put in it one egg, 1/4 cup melted margarine, 3/4 cup milk. Mix it all together and bake in oiled muffin tins 30 minutes or until done.

The rose-hip jam will be delicious on these, but depending on how your frosts have come you might not have made it yet! The wild cherries will have ripened, though, and if you have a black cherry tree you are going to have some yummy jam. These cherries aren’t as puckery as chokecherries, and their tree gets to be a full-size hardwood. In the field I cross from my house the best black cherry trees grow next to an ancient unidentifiable apple tree, and the juices of both fruits are used in this recipe.

Crush unpitted cherries in a kettle, cover with water and simmer thirty minutes. Strain through a jelly bag. Do the same with quartered apples—these are underripe and will supply the pectin the cherries lack. Combine two cups cherry juice and two cups apple juice with four cups sugar and boil it hard—and long—until it passes the jelly test (pour a little off the metal stirring spoon and the last two drops will run together and sheet off the spoon back into the pot); then pour it into sterilized jars and seal it. I suppose this really is jelly, but it’s so thick and lovely I think of it as a jam.

If you’d rather have a cooky with your tea, go for a walk along the road, any road. There will be Queen Anne’s Lace along the roadside, I guarantee. Most of the flowers have passed by and folded up into a kind of bird’s nest, dry and brown and dusty. The seeds are inside the nest and can be collected easily by shaking the ex-flower head into a bag. Clean them by rubbing between your hands. These seeds are very like caraway to taste and I like to sprinkle a few on sugar cookies before baking. If you’ve collected too many, don’t overload the cookies; crush the seeds and pour boiling water over them for yet another tea. This tea is reputed to be a gas-preventative and is a good ending to a heavy Saturday-night supper.

The tea-bread for our tea party can be made with any quick-bread recipe; but don’t put dates or apricots or ordinary storeboughten walnuts in it. The tiny sweet wild blueberries will still be turning blue under the fir trees; and if you can beat the birds to them try a cup of juneberrys in your bread. The juneberry is the “sugar pear,” the one that made the first flowers in the spring, sometimes even before it made its leaves! And the winged hazelnuts are waiting; and apples; and persimmons; and butternuts; and the wild cherries (pitted this time); or any combination of these.

Explore, experiment, enjoy: this tea party will be delightful, but it is just a taste of the unique eating provided by the free foods all around.
Hope you share our luck and have had a killing frost that wilted the summer squash that has had us and half the neighbors up to our ears in extra produce and — more happily — killed off the last of the buzzing nuisances that make life hard for man, beast, and food plants in much of New England, spring through summer. Now that there are no deerflies to chomp on you while you pick loopers off the cabbage, it’s a good time to make what plans you can to reduce next year’s bug populations. Let’s start by describing the lifestyle of the most common pests of animals and humans, then get into the ways that Louise and I have learned to deal with them in a decade on our Massachusetts homestead.

First to arrive are the blackflies, toward the end of April or in early May on our place. They are little black hump-backed things that have emerged after going from egg or bug attached to a rock in rapidly moving water. Once the hatch is well underway, they can surround you in great clouds, getting in your eyes, nose and mouth and worst of all, sinking their snouts into your skin, raising welts that can last for days. We’ve always kept our livestock in during blackfly season and we perform outdoor chores in the cool of early dawn when the bugs are less active. Not very strong flyers, a brisk wind will keep them away. Even at the height of black fly time, I’ve been able to plow with my shirt off when a weather change was kicking up relatively constant winds.

John Vivian, practical homesteader, is a well-known book author and regular contributor to FARMSTEAD.

Winged Pest Catchers

by John Vivian

Black Fly

Blackflies traditionally stay around for “only” two weeks. It depends on the weather. If you have a warm spring, all of the several biting species will hatch quickly and the two or three week prediction holds true. In cool, rainy springs, we’ve known them to hang on for almost two months. Once you’ve experience them, blackflies will help assure that you get the garden in early. Besides, they are the primary winter and early spring feed for trout and several other species of fish, and I’d trade an occasional itch for a meal of new-caught brook trout fried in butter any day. I know of no way, other than poisoning every stream in the county to get rid of blackflies, and I would rather live with them than do that.

The next nuisances to appear are mosquitoes, often before the blackflies are gone. Most folks know that mosquitoes breed in still water and prefer the cool of morning and evening — almost the reverse of the blackfly’s way of life. A good supply of house screens for windows and self-closing doors is the best way to keep them out of the house. Outdoor work is restricted to hot mid-day activity in the open (if blackflies have left). Just walk into the woods near a brook and clouds of mosquitoes rise to meet you. We always make sure that old buckets and such lying around are kept bottom up. We empty animal watering troughs frequently and work to drain swamps areas around...
Next to arrive are the no-see-ums or Punkies. A tiny (1/20 inch long) midge that will fly through conventional screening and can breed in two drops of water in a fallen leaf, it has a sting like fire and in some areas and some seasons can make morning and evening sheer agony for man and beast alike. As in mosquito time, outside work is restricted to mid-day. Most house and barn doors and windows are closed early evening to mid-morning; those left open must have special fine-mesh screen. If you live in no-see-um country, the hardware store will stock it.

The final major nuisances are the several species of deer-fly that come on one after another throughout the late spring and summer. They scare me the most because they can transmit tularemia, or rabbit fever, and the little blood-sucking worms of Luna Moths and other such lovely creatures.

The great crested flycatcher will nest in an old woodpecker nest, so don’t chop down all the dead or dying trees around your fields. The common nickname, “bee martin” is unfair, since if it does eat bees, they are largely the useless drones. There is no way to attract them that I know of but to provide tall trees near open, buggy fields. The commonest species in our area, the Kingbird will nest in your orchard or in trees near open fields. The common nickname, “bee martin” is unfair, since if it does eat bees, they are largely the useless drones. There is no way to attract them that I know of but to provide tall trees near open, buggy fields.

For the same reason, we bury any dead bat very deep.) But nature offers no better bug control than the bat. Their droppings — like black rice grains — accumulate in good quantity on the flooring under the roof peak where they hang all day. These droppings constitute one of the richest natural fertilizers there is. Indeed, one company (presumably after digging in the caves in the central states where our bats go to winter over) is selling “bat quano” for over two dollars a pound. At that rate we’ve got a small fortune up in the barn, and I bet you do too. Bats do not intentionally get caught in women’s hair. You know that they navigate by a sort of sound-operated radar and can find their way through any maze ever constructed and around any hairdo.

The group of birds called flycatchers deserve the name. The largest common species in our area, the Kingbird will nest in your orchard or in trees near open fields. The common nickname, “bee martin” is unfair, since if it does eat bees, they are largely the useless drones. There is no way to attract them that I know of but to provide tall trees near open, buggy fields. The great crested flycatcher will nest in an old woodpecker nest, so don’t chop down all the dead or dying trees around your fields. They’ll eat just about any bug that will bother you or your garden.

My favorite in the group is the eastern phoebe. It feeds mainly on harmful bugs, and is about the most sociable bird there is. Ours built her nest under the barn till Old Tom, the barn cat found her out. Now she builds her nest (raising at least two broods a year) above a glassless window in the old shed out by the hog lot. A new layer of mud and moss is added after each brood, and the stack is over a foot high now. She has a favorite roost, on a wire strung out behind the barn, and the aerobatics she performs to catch cabbage moths or dip into the bean patch to snatch up a Mexican bean beetle are a wonder. I’ve heard they even pick parasites off the backs of livestock. So, leave the door or a window of at least one outbuilding open and invite Ms. Phoebe in. The male will stay around too.

Other species of flycatchers will nest in trees around your fields if they’ve a notion, but not very many in one area. They stake out their territory and defend at least one acre
per family as hunting ground.

The territorial battle holds true for another group of bug eaters, the swallows and their distant relative, the chimney swift. All catch insects on the wing in great numbers. On our place there is only one family of each species in residence; competitors are driven off.

If you have an open chimney, you’ll have swifts building their stick and bird-manufactured glue nests some twenty feet down. They fly in the evening in goodly numbers, high up, diving gracefully, twittering and gorging on bugs. It’s the only swallow-like bird that appears to have no tail. The nests can start a chimney fire, so knock them down each fall. If you want, you can make birds’ nest soup. The Chinese delicacy comes from nests of a related species. Sorry, I don’t know the recipe.

We have three kinds of swallows. The barn swallow couple rebuilds its mud nest upon the beam under the floor of the hay loft each spring. They need a good sized door or window open twenty-four hours a day and prefer well-aged wood and an absence of too many gas, oil or auto fumes. Toward the end of the brooding period when the parents stop cleaning up, the youngsters hike out over the nest edge and let their droppings fall. Quite a mess, but a square of cardboard will catch it for the compost heap. The first brood hangs around on the telephone lines for a week or so after leaving the nest, begging to be fed. They then act as big brothers and sisters in raising the second hatch. Often a youngster will stay with the parents and act as an aunt the following year. All you need is a barn with a high ceiling, an open door, an honest barn smell and you’ll have barn swallows.

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FARMSTEAD MAGAZINE
will build nests lower down, but in the country these invariably are destroyed or raided.

The cliff swallows are a gregarious sort; they build gourd-shaped nests in a clay layer at the very top of a sandbank near us. A dozen and a half families line up in a row, each gobbling up insects. Sometimes they’ll build up under the eaves of the barn and some people call them the “eaves swallow.” To attract them, your barn should be high, have a sound roof and face out into a clear area. Ours doesn’t, so we do our best to keep them on the cliff each year by waiting till they’ve gone to pick up our winter’s sand supply.

The cliff swallows, with the standard forked swallowtail, has a white underside and a steel-blue or dark green, shiny back. There are several days of dog fights as pairs of tree swallows battle over which will take up residence in the bluebird nest up at the wall dividing orchard from back pasture. Often the birds will fall to the ground in the scrabble. We’ve put several nests (eight inches high and six wide and deep with a 1½ inch diameter hole) around the place, but only one swallow family ever stays. Sadly, the bluebirds, which come through sooner than the swallows, have never stayed around. Bluebirds are good bug eaters too and should be encouraged, as their numbers are dwindling through being driven out of their ecological niche and nests by starlings.

Starlings are also a nuisance for the premier of winged bug-catchers, the Purple Martin. Everyone has seen ads for the wood or metal martin houses you erect on tall poles; the birds nest in colonies, need a two-inch diameter hole and each nest box should be at least six inches in all dimensions; some say larger, perhaps eight or nine inches deep, wide and high. Scout birds will come around looking for nesting sites just about the time you have the peas planted. Many’s the time I’ve seen a lone martin scout sitting atop the house while starlings and sparrows are busy building nests. The only thing to do to start a colony coming to a new box is to put it on the highest pole on the highest hill you have and arrange to be able to bring it down quickly and often. Keep the starling nests out; an occasional bit of practice with the old 12 gauge may be in order now and again too. (Ever tried blackbird pie? Not bad at all). Once you’ve kept a colony over a spring, they will return. Just be sure the old nests are removed and starlings kept away next season.

Of course, as a bug-eater, starlings are nothing to dismiss lightly. Their diet is half insects. The problem is, the other half is cherries and strawberries, and they have driven off many native species. Starlings were introduced from England, I believe.) Anyway, there’s no problem in attracting them, quite the reverse.

About the only other measure I know of to attract other bug-eating species — most of which nest and feed where they durned well please no matter how you try to lure them is to keep up the birdbfeeder and suet ball, feeding bird seed six both from a suspended feeder and on the ground, during snow time. This way, you’ll keep up a good native population of juncos, nuthatches, chickadees and sparrows, all of which live in large part on bugs in the summer.

So, attract the birds, tolerate the bats, keep your swatting hand limbered up and the bugs shouldn’t bother you so much next season.
TOMATO MARMALADE
10 medium tomatoes (2½ lbs.), blanched, peeled and cut in pieces
2 lemons, quartered and sliced thin
4½ cups sugar
Place tomatoes and lemons in a heavy saucepan with cover. Cook gently with cover for 45 minutes, stirring occasionally to prevent burning. Remove cover and increase heat. Cook about 15 minutes more until thickened. Add sugar. Boil 2-5 minutes (222° or jelly stage).

BAKED APPLE DESSERT
¾ cup sweet butter
1 cup sugar
¾ cup flour
4 cups sliced apples
¼ cup water
½ teaspoon cinnamon
½ teaspoon nutmeg
Cream together butter and sugar, adding sugar gradually. Work in flour. Place apples in a greased 10" x 6" x 1½" dish. Sprinkle with water, cinnamon and nutmeg. Spread flour mixture on top of apples. Bake at 350° for 40 to 45 minutes. Serve with custard sauce.

GOAT'S MILK BROWN SUGAR FUDGE
1 cup goat's milk
1 cup white sugar
1 cup light brown sugar
1 tablespoon light corn syrup
¼ teaspoon salt
Mix these ingredients together and allow to sit at room temperature ½ hour so sugar melts. Bring slowly to a boil, do not stir, maintaining at a boil until it reaches 240° on candy thermometer. Remove from heat and add:
1/3 cup coconut
3 tablespoons butter
1 teaspoon vanilla
Set pan in bowl of cool water until mixture cools to 145°. Stir hard until the fudge starts to thicken. Drop by tablespoonfuls onto waxed paper. (For chocolate fudge: substitute white sugar for brown, add 1/3 cup cocoa, and substitute broken nuts for coconut.)

JOY BARTER, PENOBSCOT

POTATO-BEEF PIE
6 large potatoes
1 ½ lb. ground beef
½ small onion, chopped
1 teaspoon oregano
½ teaspoon cumin seed
2 garlic cloves, minced
1 tablespoon paprika
1 spoon of tomato sauce
6 green olives, sliced
1 small can green beans, drained
2 eggs beaten
salt to taste
Boil and mash potatoes with butter and salt (use a little milk). In greased rectangular glass pan spread ¼ of the potatoes on the bottom and up sides. Saute meat with onion, garlic, oregano, cumin, paprika, salt and tomato sauce. Slice olives into this mixture. Pour meat mixture into the potato lined pan. Spread green beans on top of meat. Then spread rest of potato and top with the eggs. Bake 30 minutes or until the egg is set and brown (350°).
HONEY DATE BREAD
1½ cup chopped dates (½ lb.)
½ cup sugar
1/3 cup honey
2 tablespoons butter
1 cup boiling water
3 cups sifted flour
3 teaspoons baking powder
½ teaspoon salt
½ teaspoon cinnamon
1 beaten egg
½ cup chopped nuts

Combine first five ingredients; cool thoroughly. Sift together the dry ingredients. Add egg to cooled mixture. Stir in dry ingredients only enough to mix well. Stir in walnuts. Bake in a well greased loaf pan at 350° for 55 to 60 minutes or until done. If desired, spoon Honey Icing down center of baked bread while warm and sprinkle 2 tablespoons grated orange rind. HONEY ICING: Blend ¼ cup confectioner’s sugar with 2 tablespoons honey.

GRANDMA’S SALAD DRESSING
¼ cup sugar
¼ cup salad oil
¼ cup catsup
¼ cup vinegar
2 teaspoons grated onion
2 teaspoons chopped tarragon
juice of 1 lemon (or 2 tablespoons)
¼ teaspoon salt

Mix all ingredients together in a pint jar and store in the refrigerator. This is good served on orange slices with sweet onion slices.

RYE CRACKERS
These homemade crackers make a nice gift.
2 cups rye flour
1 cup whole wheat flour
1 teaspoon salt
1 tablespoon crushed caraway seeds
1/3 cup olive oil
about 1 cup water

Combine flours, salt and caraway. Add the oil and work it in with your hands. Add the water (enough to make a manageable dough) and mix well. Knead until smooth and roll out on floured board. Cut into squares and bake on ungreased sheet at 350° about 20 minutes or until light brown.
A recent Gallup Poll indicated that 51% of all U.S. households have some kind of vegetable garden compared with 49% or approximately thirty-five million families in 1975. That's a lot of vegetables! Assuming that you have been generous with neighbors who don't have gardens; that you have canned, preserved, steamed and baked until you are "stir crazy", what then? With everyone looking for meatless, budget-stretching meals, you can't go wrong with vegetable soups. They are a fine way to utilize broth you have saved from cooking meat, poultry or vegetables. They can be made in quantity and improve in flavor if any is left over. So, before your cucumbers and zucchini resemble baseball bats and your pumpkins are the size of Cinderella's coach, emulate that cook who said she never needed a recipe for soup because she only made one kind, "alphabet", meaning that she threw everything from "a" to "z" into it.

Two hundred years ago soup was popular through necessity. A large pot containing quantities of liquid could be placed over an open fire and almost anything dropped into it that would hold body and soul together such as corn chowder or stew made of pumpkin which had been introduced to the settlers by the Indians. Now the soup tureen or earthenware crock is reappearing on the tables of America from choice for its practicality and decorative aspect... so pick the cream of your autumn vegetable crop and be on your way to happy "souping"!

**CREAM OF WINTER SQUASH SOUP**

1 butternut squash (about 3 pounds)
2 cans (10½ oz.) condensed chicken broth, undiluted (or homemade)
⅛ teaspoon salt
Dash white pepper
1 cup cream or evaporated milk
⅛ teaspoon nutmeg

The day before serving, bake whole squash in 400 degree F. oven about 1 hour or until tender when pierced with a fork. Let squash cool slightly. Discard seeds and scoop squash pulp from skin. In electric blender, combine half of squash pulp and 1 can of broth. Blend at low speed until well combined, then at high speed until smooth. Turn into bowl. Repeat with remaining squash and broth. Stir in salt and pepper. Refrigerate soup, covered, overnight. At serving time heat squash mixture just until boiling. Gradually stir in ½ cup cream (or evaporated milk); cook slowly until heated through. Taste for seasoning. Add more salt and pepper if necessary. Serves 6.

**COLD CUCUMBER SOUP**

4 large cucumbers, peeled, halved lengthwise, seeded and finely chopped
2 quarts boiling chicken broth (homemade or canned condensed)
6 tablespoons butter or margarine
2 onions, finely chopped
½ pound mushrooms, sliced
Salt to taste
Freshly ground black pepper to taste
2 cups light cream or evaporated milk
4 tablespoons chopped chives

Add the cucumbers to the boiling chicken broth, cover and simmer 10 minutes. Heat the butter or margarine in a small skillet and sauté the onion until tender. Add mushrooms and cook 3 minutes longer. Add to broth mixture. Season to taste with salt and pepper. Cook 3 minutes. Cool and chill. Just before serving, stir in the cream. Sprinkle with chives. Serves 8.

PUMPKIN SOUP
2 cups cut-up pumpkin
1 small onion, sliced
1 rib celery cut in 1” pieces
1 sprig parsley
1 quart milk
1 tablespoon cream of wheat
2 tablespoons butter or margarine
Salt and pepper to taste
2 teaspoons sugar

Put pumpkin in saucepan, cover with boiling water. Add onions, celery and parsley. Boil until tender and most of water has evaporated. Drain, remove celery. Press pumpkin mixture through coarse sieve. Return to saucepan with milk, bring to a quick boil. Sprinkle in cream of wheat. Let cook 10 minutes over low heat, stirring constantly. Add salt, pepper and sugar and pour into soup plates. Serve with a lump of butter in each bowl. Serves 6-8.

ZUCCHINI SOUP
2 pounds zucchini washed and sliced
2 cups chicken broth (homemade or canned condensed)
Salt to taste
¼ teaspoon basil
¼ teaspoon thyme
¼ teaspoon marjoram
4 cups milk
Whipped cottage cheese or yogurt

Place the zucchini, broth and salt in a saucepan and bring to a boil. Cover and simmer gently until tender. Cool. Add the basil, thyme and marjoram and puree in an electric blender. Stir in the milk and heat, but do not boil. Serve topped with cottage cheese or yogurt.

FRESH CORN SOUP
2 cups fresh corn
4 cups boiling water
4 tablespoons butter or margarine
4 tablespoons flour
1 teaspoon salt
½ teaspoon pepper
2 teaspoons minced onion
4 cups evaporated milk

Simmer corn and water together for 20 minutes. Press through a coarse sieve. Melt butter, blend in flour, salt, pepper and onion; add milk gradually. Heat to boiling, stirring constantly, and add strained corn. Cook until thickened, about 5 minutes. Add popcorn for garnish just before serving. Serves 8.
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FALL/WINTER '74/75
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as they have evolved according to particular environments—
for example, how the forest plant differs basically from
the plant which thrives in open fields. All this is followed
by an appendix which covers the harvesting, drying, and
storing of roots. “A method of detailed examination of
root systems,” in the end, divulges the artist’s “secret” for
observing the exquisite detail of roots which is expressed
so perfectly in his work.

Gentle warnings throughout the book make the reader
aware of endangered species of plants. The reader may be
surprised to learn how many endangered species there ac­
tually are, and yet the forager can help nature to propagate
scarce plants by following a few simple suggestions which
Elliott makes.

One thing which I admire about this book is the lack of
skepticism. Elliott knows that what he is saying is right,
though he never overstates the fact. There isn’t any of the
timidness which makes me suspect Euell Gibbons’ work,
or question his sincerity. For example, in Roots Elliott
doesn’t hedge regarding medicinal benefits. Valerian root
(which can be dug just about anywhere in Maine), Elliott
says “is a powerful nerve tonic, carminative and antispas­
omodic. It is used as a nerve sedative that eases pain and
promotes sleep without narcotic after-effects.” I’m par­
tial, also, to Elliott’s personal philosophy. “Cultivating a
taste for wild carrots,” he says, “is certainly much easier
than cultivating a garden full of domestic ones.”

Perhaps Elliott could have tempted us with a few more
recipes (first I want to know his recipe for Indian Cucum­
ber root pickles which took a blue ribbon at Maine’s Fry­
berg Fair). He does, however, suggest enough to spark the
imagination of a good cook. Many of the roots are best
eaten raw, anyway. As Elliott writes about Sweet Cicely:
“My favorite way of consuming Sweet Cicely is to eat the
root raw out of the ground, after washing it in a moun­
tain spring. The delicate licorice flavor leaves a fresh, sweet
taste in the mouth. I never cease to marvel at how plea­
sant our woodlands are, yielding a root that is so sweet and
candy-like in its raw and unaltered state.”

Altogether, this is the best book I know of about roots.

---

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by Jack Brooks
The shingles on the roof are thin,
The roof itself is sagging in,
And in the farm-yard by the door
An abandoned water-tank lies prone.
The front door-step of broken stone
Fails to meet the worn porch floor.

The rusty truck beside the gate
Is not in use so much of late,
But chickens somehow, still are fed
And a placid cow is in the barn.
Work-clothes wait for mend and darn
On the counterpane upon the bed.

Screaming children at their play
In ragged clothes, are just as gay
As in the home of genteel wealth.
The flashing eye and glowing cheek
Is everything that parents seek
And speak robust of glowing health!

Each day, the husband and the wife
Arise at dawn, and start their life.
The fruits of earth are gathered in,
The wood is cut, and split, and piled,
Preserves are made of berries wild
And hay is in the barnyard bin.

Their boots are worn, and stained with soil.
Their calloused hands are rough with toil
And yet, it is a wondrous thing
To tend a youngster’s wounded knee
Or mend the wild-bird’s broken wing.

At night, beside the stove they sit,
The children sleep, the lamps are lit.
He smokes his pipe, her fingers ply
While star-shine glitters on the hills
And pours a spreading peace that fills
The furrowed fields and tranquil sky.

When pallid dawn begins to glow,
He’s on the uplands with his horse.
While she begins her daily course
Of household chores. For them, they know
The eternal verities are these.
With days of splendour, and nights of ease.
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