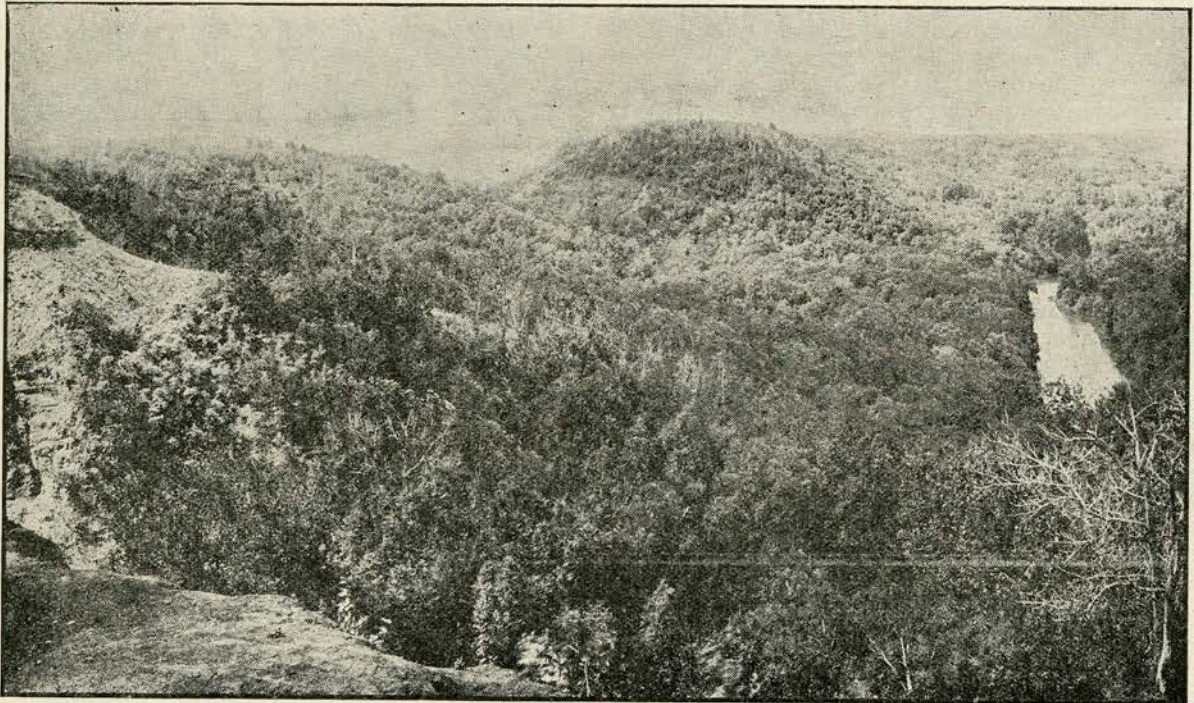


NORTH AND SOUTH DAKOTA HORTICULTURE

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View of the Pembina River and Pembina Mountains, near Pembina, N. D.

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THE RED-HEADED WOODPECKER

by
O. A. STEVENS



O. A. Stevens

This was another of the birds which was first described by Mark Catesby in his *Natural History of Carolina* a little over 200 years ago. He called it "the woodpecker with an entirely red head," a distinction worth remembering. So many times various people have described or identified for me a bird as this species merely on the grounds that there was some red on the head. Most of our common woodpeckers have a spot of red on the head, at least in the males. The real red-head is unmistakable, for the whole head is red. The back and forepart of the wings are black and a large central part of the wings is white. These give a contrasting color combination which is not found in any of our other woodpeckers. The female is like the male. The young are brownish on the head and gray on the back but readily recognized by the nearly white band across the wings.

The red-heads are found over a large part of the United States. They are common through the central portion, rare in the southwest. Northward they extend only to southern Canada. North Dakota is thus near the northern edge of their range and they are not very common there. Several people have recently expressed to me the opinion that they are becoming more common in the Fargo region. Perhaps so, though the difference is not great enough to be too positive about it. I never see them before the middle of May and view with suspicion all early reports. They are reported to spend the winter as far north as southern Minnesota, but only to the extent of occasional individuals.

It seems strange that they should be so late in arriving when some of them remain so far north, but they have apparently become adjusted to a late nesting season. It can scarcely be maintained that they have extended their range northward for Major Coues considered them common at Pembina, North Dakota in 1873.

While on a visit to northern Kansas the past spring I had the pleasure of renewing acquaintance with the Red-bellied Woodpecker, a closely related form which is rarely seen as far north as South Dakota. I was surprised to learn that these remained there during the winter and my sister assured me that the red-heads are late in arriving even in that region. N. S. Goss in his "Birds of Kansas" states that they "occasionally

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linger into winter."

They are birds of the open country rather than of the woods. Thus they often become more common in certain districts with the clearing of the timber and settling of the country. Sixty years ago Dr. Merriam reported that they remained in northern New York during the winter if the crop of beechnuts was good. In central United States
(Continued on page 96)

North Dakota State Horticultural Society News Letter



A. F. Yeager
Secretary,
Fargo, N. D.

The North Dakota State Horticultural Society meeting will be held this year at Grand Forks on Thursday and Friday, September 2 and 3. Plan to attend.

We have just been using some of the odorless cabbage produced by the New York Agricultural Experiment Station. The variety proved to be a very early Savoy or crinkle leaf type, and while it has some odor when cooked it is nevertheless much less strong than ordinary varieties. The flavor is good. We believe the variety would not sell well in this region because it is a Savoy.

In answer to an inquiry, Mr. E. J. George of the Northern Great Plains Field Station at Mandan states that while the American elm was not included in their list of the seven best shelter-belt trees as indicated by experiments at Mandan, he did not consider that it was to be condemned. It was not included because it had not been used in their trials, hence they had no data. However, he says, "We are very favorably impressed with American elm for general farm planting." He also states that, "The Chinese elm should not be planted in pure stand nor in narrow belts of only three or four rows, but that one or two rows can be used in belts of 6 to 12 rows of trees." The point I wish to make is that Chinese elm has not been given the sweeping endorsement by Mr. George that newspaper publicity might lead one to think. Chinese elm has a place as a shelter-belt tree, but it can be expected to kill back considerably some winters. It does sprout up again and makes a dense growth, hence is a valuable shelter-belt plant. As a shade tree for this area other kinds are preferable. Very few Chinese elm planted for this purpose are in good condition at present.

One of the governmental agencies which is planting tree seed in quantity in its nursery in North Dakota was recently attempting to collect 1100 pounds of American elm for the purpose. They did not want Chinese elm.

THE PRODUCTION OF CUCUMBERS FOR PICKLING PURPOSES is the title of special bulletin No. 273 of the Michigan State College, East Lansing.

HOUSE INSULATION, ITS ECONOMICS AND APPLICATION is the title of a bulletin by the U. S. Department of Commerce. It may be had from the Superintendent of Documents, Washington, D. C., for ten cents.

I wonder if any of our members have made juice from yellow tomatoes. Some folks seem to prefer the yellow color to the usual red. Previous mention of this use of yellow tomatoes brought us an inquiry from a large manufacturing corporation asking for samples of the product. We were unable to supply them.

Mr. Frederick Wolhowe of Verendrye would like to know of some plants which will give early sprays to combine with iris and peonies in season. Let us have your suggestions.

When fruit trees bear an exceptionally heavy crop they are more subject to winter injury the following winter than is the case if the crop is light. If, during the year when heavy fruit crop is produced, the plants can be stimulated into making good vegetative growth by application of nitrogen and water this tendency towards winter killing will be greatly reduced.

A bulletin of the American Dahlia Society says that dahlia roots may be dipped in paraffin after being carefully washed as a means of preventing their drying out over winter. The warning is given not to heat the paraffin any more than necessary in order that damage may not be done.

Bittersweet, like the wild grape, may be unfruitful because it carries imperfect blossoms.

The United States Department of Agriculture says that the high color of autumn leaves is due to the sugar in them.

Prof. Cummings of the University of Vermont suggests the following as a means of controlling hollyhock rust: cut all stocks and take all dead leaves away from the plants in the fall and burn them. In the summer when rust appears on the leaves, which are usually the bottom ones, pick them off and destroy them immediately. If the rust gets bad enough, dust the plants with fine dusting sulphur once each week three weeks in succession, beginning early in June.

Mr. W. E. H. Porter of Hansboro says: "My two year old plants of *Lallemantia canescens* are now in flower—like a blue snapdragon and very fragrant. I wrote an item in *HORTICULTURE* (Boston) last winter about this new perennial for the United States, and sent seeds literally from Maine to California. It flowers freely the first year and is very viable. Only one plant winter killed for me, and I now have hundreds of this year's volunteers. It grows as freely in North Dakota as the commonest weed, and I can offer at least one desirable perennial for next year's premium list that anyone can grow, and guarantee free flowering from now until October freeze. I just wish that every member of our Society had that beautiful variety of *Lychnis chalcidonica*, viz. *Salmonea*. Its flowers open white and then change to deep salmon pink."

HERBS — YARBS

by
Mrs. R. L. Keating

There was a certain shelf in grandmother's store room and at the far end of that shelf stood a pitcher, covered with a saucer. It was a different kind of pitcher and had a special use. Six-sided it was with a little green leaf on each flat side, and what it held was a dark brown liquid brewed by grandmother herself, from certain dried leaves she had gathered at a certain time of the year and moon. One dose of that liquid would cure most any kind of ache or pain that threatened to keep you home from school. It would cure you before you took it, in nine tenths of the cases. Laugh now, but to the culprit with a trumped up pain, it was a loathsome punishment, a proof that the way of the transgressor was truly hard. Pennyroyal was not so bad; catnip mean enough and wormwood, though detestable, came in smaller doses. Dandelion tea, the fair globe of seed, hyssop in due meed, rue on rare occasions, how cheerfully these poisons were given the youngsters and how wonderfully rare were fatalities from them.

But the memory of herbs is not all bitter. The kitchen will soon be reeking with thyme and sage for Thanksgiving is upon us. Mingled with them will be cinnamon, cloves and bay leaf, the eastern spices and tea, a true herb of ceylon. In grandmother's garden were pot-marigolds, calendulas we call them, and every petal gathered when they began to fall, dried and stored for seasoning and for soothing syrup. Since the days of Lang Syne barrels of dried petals have been carried in the old time grocery stores. There was monkshood and foxglove in the dark corner of the garden, but grandmother did not venture to use them as they were too deadly, in her opinion, for any but physicians to handle. Larkspur, brewed from dried stems and roots, was potent enough when youngsters had been so unfortunate as to bring home the gray louse. Bear's grease first and then a good wash and rinse, and then larkspur tea, was the method. Today aconite is made from monkshood, louse powder from the stately delphinium or larkspur, senna from cassia, and galena from pyrethrum, the painted daisy.

The white poppy gives us poppy seed for our braided loaf and opium and all its derivatives for the allaying of agony. Camomile is raised for camomile, the remedy and lavender perfumes the linen of the household. The butterfly weed is not only flaming on the steep hills in July but has been the healing pleurisy root for centuries. Veronica Virginica, those clear purple-like spikes that thrive in sun or shade, wet or dry, year after year, is the source of veronica. Hyacinths, lilies, peonies, mallow and eyebright were all potents, of old. Years ago, when a man selected his helpmate, he

picked one skilled not only in the care of plants but also in the drying and preserving of them; in the preparation of doses, of ointments and distillates. Such a woman could tend his wounds, allay his pains and humors of the blood and ease his gout. The perfect wife knew how to mix the remedies, at what turn of the moon to gather herbs, how to perfume and color unguents for broken bones or broken hearts, drinks too, and potions that preserved the happiness of her lord and master. Editor's note: The author describes an extinct animal in the above sentence). Yes, and held his affection, "for there be such powerful drinks as will restore the love of a man." The authority for these statements can be found in a *Historie of Plants* by John Gerarde, the complete edition published in full in 1636. A recipe all women will want to cherish is: "The root of Solomon Seal stamped when it is fresh and green, and applied, taketh away in one night, or two at the most, any bruise, black or blue spots gotten by falls of woman's willfulness in stumbling upon their hasty husband's fists, or such like." But what has become of this century-old habit of gathering herbs and brewing or distilling them to cure all the ills man is heir to? The answer is that like spinning and weaving, what was once the business of the housewife has become the business of corporations. Herbs known as crude drugs, are grown in cultivation where practicable, gathered in the wild state where they abound, or when they defy the taming process. The sweet herbs for cooking purposes, formerly grown in the kitchen garden but which we now buy dry and rather tasteless at the chain grocery store or the farthest back corner of the drug store, are all grown and prepared for the factory that puts them up in convenient packages. When the World War began to restrict imports and finally stop them, one of the most urgent needs created was for dried herbs for medicinal purposes and as a war measure, many private growers sprung up to fill the breach, medical companies hired experts and went in for home grown yarbs. In this country there are still wide areas where many herbs grow wild in abundance, including ginseng and golden seal. There are still private growers of herbs, some seed houses sell seed and the government furnishes bulletins with full information to possible growers of crude drugs. The growing of one's own garden spice however, is another thing, pretty, easy to use and always there when wanted, a bed of mint, parsely and summer savory, with a border of thyme and a bush of green sage, is as easy to start and maintain as any other perennial bed. During recent years there has been a great revival of interest on the part of the home gardener in growing savories for home use and even a very interesting magazine is devoted en-

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HERBS — YARBS

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tirely to this subject. A number of savory herbs are quite satisfactory when dried for winter use, while others are at their best when strictly fresh. For this reason many gardeners are now growing small quantities of mint, water cress, parsley, rose geranium, etc., in flower pots in the house during the winter months. In sections of mild climate savory herbs can be grown in cold frames during the winter and in our northern sections, these herbs will live over winter in the garden if given protection. The herb garden should be near the house where the plants can be watered during dry weather, also for convenience during the growing season, to gather fresh herbs for seasoning use in the kitchen. A small space will supply all the herbs needed for the average family.

In planning and planting the savory or aromatic herb garden it is well to have in mind that certain of the herbs are annuals, some biennials and others perennials. Some are of weedy nature and spread by seed distribution and for that reason should not be allowed to form any more seed than is required for replanting. The savory herbs can be grown on any good rich, well drained garden soil. The fact that most of these plants are either biennial or perennial and remain in the one place for more than one year makes it extremely important that the soil be well prepared and fertilized before the plants are started. The culture does not differ materially except as to methods of propagation, planting, the methods of drying the herbs and preparing them for use, are also very similar, the main point being to gather the herbs at the proper stage of maturity and dry them rapidly in the shade or partial shade, so as to retain their color and their aromatic flavor. For the best quality, the herbs require to be grown fairly rapidly and the main points are to keep the soil well cultivated and free from weeds and to be prepared to apply water during periods of drought. I will give an alphabetical list of savory or aromatic herbs:

1. Anise: An annual, easily grown from seed. It belongs to the same family as the carrot, celery and parsley. The leaves and seeds are both used in flavoring breads, cakes and candies.

2. Basil: An easily grown and attractive annual. Basil may be raised in a flower pot during the winter. The clove flavored leaves are used for flavoring salads, meats and soups, especially tomato soup or tomato sauce for macaroni.

3. Caraway: A biennial brought to us from the old world. It needs protection here to go through the winter. Its white lace flowers on tall stems are quite pretty. A Norwegian way of using caraway is for seasoning sauerkraut. Heat the sauerkraut in butter, stir in the caraway seeds and let the sauerkraut cook slowly for 15 to 20 minutes.

The result is a very delicious blend of flavors. Many people like caraway seed in cottage cheese, also.

4. Celery: An important vegetable crop, difficult to grow as it requires rich soil and plenty of moisture. Celery stalks, leaves and seeds are all used very widely, for seasoning.

5. Chives: A relative of the onion. They may be planted in the border as an ornamental, or raised in a flower pot. The young tender leaves are used in soups, salads, stews, sandwiches and steaks. There is a restaurant in New York famous for its minute steaks. The dressing of chives and butter, is the real secret.

6. Coriander: A European annual easily grown from seed. The seed is used in flavoring bread and other foods in the same manner as caraway seed.

7. Dill: A plant similar to caraway, and very easy to grow. The most common use of dill is in the making of pickles. Finely chopped leaves give a delicious flavor to creamed chicken, shrimp or creamed eggs and some people recommend sprinkling chopped dill on fried fish or veal cutlet and then pouring on a little of the hot fat from the skillet to bring out the dill flavor.

8. Fennel: Very popular in Italy, but most people here have to cultivate a taste for it.

9. Horehound: It needs only a word in passing as not many of us want to make our own horehound candy.

10. Sweet Marjoram: A perennial that is nice to grow in the house all winter because its fresh leaves are used for flavoring soups, meat pies and dressings.

11. Mint: There are many kinds of mints grown for their essential oils, spearmint, peppermint, applemint, orangemint, horsemint, curlymint, water mint; they like lime in the soil. Acidosis doesn't bother them. Peppermint is grown on a commercial scale for the production of oil used in flavoring candies, chewing gum and other special products. Spearmint is easily grown in home gardens but must be kept within bounds as it is very likely to become a pest. Mint is used in jellies and also bread crumb stuffing for lamb. The English cook their green peas with a few sprigs of mint. Crystallized mint leaves are seen in confectioner's windows in the larger cities.

12. Nasturium: A savory herb that is a native of Peru. The half ripened seeds are added to mixed and mustard pickles to give a pungent flavor. The leaves and stems are used in salads and the petals of fresh flowers are frequently used as decoration for the salad bowl.

13. Parsley: The moss-curved parsley is commonly grown in home gardens for garnishing and flavoring purposes. When it comes to garnishing

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SECRETARY'S CORNER

by
W. A. Simmons

Mr. H. E. Beebe of Ipswich, S. D., has had some post cards made of the picture taken of the Clark gathering. While smaller in size than the regular picture, these are very clear and show each face plainly. For those that have not wished to go to the expense of getting one of the larger pictures, these are a very good substitute and can be had from Mr. Beebe for 10 cents each, or 3 for a quarter.

July 15th. A wonderful rain, bringing .87 of an inch of most welcome moisture, has temporarily allayed our fears of another drought and set everything to growing again. The early lilies, the coral (*tenuifolium* or *Pumilla*, as the English have decided it shall be called), concolor, elegans, umbellatum and hansonii are but a memory and in a few days the Regals will be in the same category. Those wishing to extend the Regal season now have the choice of three beautiful hybrids of Regal X sargenti, the princeps, Creelman and Pride of Charlotte, all of which follow the Regal, after an interval of about two weeks. Seed of all of these is now obtainable from lily specialists, but being from a hybrid, it cannot be expected to exactly reproduce the original, but we are told by those that have tried it that each seed produces a lovely lily and the season of bloom, is closely adhered to. Bulbs can also be purchased but the stock is so limited that the price is naturally high but this will probably not long continue. The late David Griffith showed how rare lilies could be rapidly increased from bulb scales, grown in sand and from these, hybrid lilies will come true. The lily of the hour, in our garden is the Leopard lily, (*L. pardalinum*), a beautiful native American lily from the west coast, but entirely hardy and seemingly very much at home, in our section. It is a lily of the recurved petal type, as in the well-known tiger lily, but the vivid red coloring with the many leopardish spots, make it much handsomer than the tiger. Later on will come the Henry, the Formosa lily and the tigers. The Formosa lily comes in at least two forms, the Price's, which is an early lily blossoming a short time after the Regal and growing only about 3 feet in height, and the Wilson's which attains a height of 6 feet and blossoms just before the coming of frost. Many lily lovers have found that the latter enjoys the longer life and is the more dependable lily though most of us will want to have both, so as to extend the Formosa season. The lateness of the Wilson's form may forbid its going very far north where early frosts are to be expected as a 6 foot lily is not the easiest thing to protect from frost. Mr. J. J. Ostrowsky has discovered a robustly healthful strain of speciosum lilies, in the garden of a local man, where they have grown for

many years and increased so rapidly that the owner was compelled to thin them out every few years. Mr. Ostrowsky obtained a supply of these bulbs last fall and they are now flourishing in his garden and propagating these from scales, will rapidly multiply them. Hitherto these lilies have been short lived in our gardens, being diseased to only a slightly lesser extent than the auratum. Perhaps some day we may hope to have a disease-free and contented auratum in our gardens, also. As most of our readers know, some lilies do not appear above ground the first year, when started from seed. In growing these lilies, Mr. Oscar Ellefson, the genius that creates the lovely garden pictures in our McKennan Park, sinks a bottomless box in the garden and sows the seed in these. He finds this method far superior to planting them in flats or pots, as in the open ground more satisfactory moisture conditions can be maintained and the soil does not become so hard and compacted as it does in a flat or pot. We were very much pained to learn from a card from his devoted disciple Thos. Miller, that Mr. Robertson is again in the hospital, taken there on June 27th., just a few days after our visit with him on the 23rd. At the time of our visit we found Mr. Robertson out in the field superintending the work of his three men and though obviously far from well, we had hoped for a gradual improvement, but troubles such as his, are difficult to appraise from appearances. We can only hope that the devoted sisters in the hospital, who have never failed to nurse him back to health, will be equally successful this time. At the last meeting of the Executive Board it was decided to accept the invitation of Clark and again hold our winter meeting in that friendly city. The dates selected are November 17th and 18th. To those that attended the last meeting there, no urging to come again is necessary, while those that did not attend, have been feeling sorry for themselves ever since, and will not, I am sure, make the same mistake again.

North Dakota is the only state in the union that has never recorded an earthquake.—Capper's Farmer.

N. O. MONSERUD

Landscape Architect Tree Surgeon

Office—First National Bank Building
SIOUX FALLS, S. DAK.

PHONE 555



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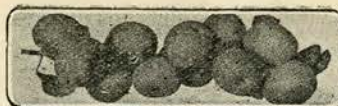
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BOOK REVIEW

by

Mrs. F. Briley

THE PLANT DOCTOR, by Cynthia Westcott, Ph.D., published by Frederick A. Stokes, New York, price \$2.00.

The author of this book is unique in that although she deals entirely with the control of plant enemies, she does not bore you at the beginning with a general discussion of the types of plant diseases nor the organisms causing them. Instead, she goes directly to the garden with you and gets you to work, giving such explanations as are necessary as we go along.

The Plant Doctor goes on the theory that one thing calls for another and bases her writings on her belief that if you will give an average of an hour a week, from March to November—only forty hours a year out of a total of 8760, she can practically guarantee you a reasonably healthy garden, provided you use the time intelligently. Consequently the book is divided into nine chapters, one for each of the months named, and each chapter is accompanied by a calendar which shows garden tasks budgeted for each week in the month. The sixteen reproductions from photographs and many line drawings add much to the volume, as does the complete dictionary for reference in the back of the book which gives definitions of all terms used by the author. Cynthia Westcott has doctored some of the finest gardens in the northeast and make you feel, by the terms she uses that she is a real physician. She "amputates, when and where it is necessary with surgical precautions," and urges you to sterilize the clippers after operations on each diseased plant. She feels a shudder of pure horror when she sees some one pull up a sick peony stalk by a spore covered base and then immediately handle healthy plants. It is as real to her as if she saw a surgeon plunge bare hands into a festering wound and then handle the next patient without even washing his hands. The mystery is not why plants die but why so many live. Spraying is the author's great cry and she believes it is in order for your garden "even if the family jewels must be pawned." The individuality of each insect has been carefully studied and brought out by the author and each treatment is based on actual experience. Bugs do not live forever but the slug scorns all labor rules and finds every day "Thanksgiving Day" in the fall. There are many plant problems that are crying aloud to be answered. We should lay our problems before our universities to solve, so that more research work will be done about the commonplace.

HERBS — YARBS

(Continued from page 90)

however, most men garnish the table cloth when carving the Thanksgiving turkey.

14. Sage: A shrubby perennial from southern Europe, widely cultivated in the garden for its aromatic leaves which are used for seasoning. The tender leaves should be sheared, tied in small bundles and dried thoroughly but quickly and then stored in air tight containers. Next summer you might make sage lemonade from a handful of sage leaves brewed in tea with sugar and lemon added.

15. Savory: Summer savory is an annual, winter savory a perennial, and the tender leaves are used in many cooked dishes.

16. Tarragon: A close relative of the wormwood, is a perennial and belongs to the same family as the dandelion and sunflower, with composite heads. It is a native of the regions around the Caspian Sea, where the soil is very poor and dry but rather warm. The tarragon plants are not very hardy in cold climates, especially where the snow is dense, so they need winter protection. Beds should be changed every 3 or 4 years to avoid diseases. It has a delightful flavor and is used in seasoning salads, vinegar, pickles, and mustard. One of its principal uses is for the making of Tarragon vinegar, but the most of this comes from France, where its culture is common. There is a famous French Sauce that depends entirely on fresh Tarragon for seasoning.

17. Thyme: A member of the same plant family as mint but more difficult to propagate and grow. The plants should be allowed to come into full bloom, then shear off the bloom together with an inch or so of the tender stem and leaves. These clippings are then spread on cheese cloth stretched on a wire bottom tray and dried in the shade, then stored in glass jars, in dark places as direct light fades the material.

18. Watercress is grown extensively for market, in shallow ponds especially where limestone springs abound. Although watercress is primarily a surface-water plant it can be successfully grown in beds of rich soil, properly limed and kept moist. It is used mainly for garnishing or in salads.

Please remember that it is the aromatic oil in herbs that gives them their fragrance and flavor, and unless you use them fresh or dry and store them so as to retain that oil, you might just as well have a bale of hay. Preventative medicine and hygiene have crowded out casual herb tea but the herb itself was not to blame, it is here to stay and is taking its rightful and better understood place in new ideals of health by prevention as well as cure.



ENGLISH HORTICULTURE

by
M. Truman Fossum

Among the works of Henry Van Dyke we find the following:

Oh London is a man's town—there is power in the air,

And Paris is a woman's town with flowers in her hair;

And it's sweet to dream in Venice and it's fine to study Rome,

But when it comes to living there is no place like home.

I like the German fir woods in green battalions drilled,

I like the Gardens of Versailles with flashing fountains filled,—etc., etc.

Personally it seems to me that the above is a very brief and complete description of the parts concerned. London is a man's town—there is power in the air,—it is also very true at that part with which I became most intimate—The Royal Botanic Gardens, Kew.

The first thing that took my attention upon landing in England was the knowledge and interest of the general public in things horticultural. Rudyard Kipling writes, "Our England is a garden that is full of stately views, etc." And so it is from the tiniest peasant's cottage to the ancient Royal Residence at Windsor.

Then the next thing most noticeable along this line was the fact that in the professional field of horticulture the United States is far behind Europe as compared with our advance in medicines, engineering, architecture, etc. We of this country have been depending almost entirely upon foreign born and foreign trained men to guide our horticultural destinies. Horticulture in America is still in the adolescent state.

Statistics show that since the depression began the ordinary people are beginning to take a greater interest in things of this type and only in comparatively recent years have several of our leading Universities inaugurated courses and degrees in horticulture and other horticultural and botanical institutions have instituted systems of student training.

In its quiet way England has developed Kew Gardens ranking second to none—and under it's jurisdiction come many branches in the colonies of the British crown. To some it may seem a foolish waste of money to develop and maintain a place like Kew. But when one stops to think that through that institution the establishing of some of the chief industries and sources of revenue for Great Britain have come about, the cost of maintaining such a place is minor as compared to the millions of pounds now derived through the horticultural and agricultural pursuits. These in-

clude the collecting, improvement and distributing of Rubber (*Hevea brasiliensis*), Quinine (*Cinchona* spp.) Bananas (*Musa* spp.) and a host of lesser economic plants.

At the same time it is a place where people may come to relax and enjoy themselves, study nature, botany, horticulture and draw, paint or what have you—. Besides being practical the place is layed out along proper lines from the view point of landscape architecture.

There is more to such places than huge investment, in structure, architectural features and equipment. Too often here in the United States our institutions of that nature are based on such standards.

The sooner the Dakotas and the United States realize the value of such, that much sooner will the benefits be reaped for the good of all. The past few years have proven to Dakotans that horticultural pursuits must be included with those of an agricultural nature.

When we realize how a country the size of England and its colonies supports such a population, it occurs that this can only be successfully done by carefully handling natural resources and

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THE PIONEER SEED HOUSE

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BIRD HABITS

by
F. W. George

(Continued from July)

Those who have devoted the major part of a life time to a study of birds and their habits tell us, that if all the birds in the world suddenly became extinct, that all life both plant and animal on this globe would cease to exist in comparative-ly a very few years.

Could this be true? Let us consider the matter. There are few, if any things in nature, that reproduce themselves so enormously and rapidly as do insects. A million can be the offspring of one mother insect of some species during a single season, and many thousand are not uncommon, through the successive maturing of several generations in a single season.

What, then, would be the ultimate result, if these great and rapidly increasing hordes of insects were to continue reproduction unchecked by birds or otherwise through a series of years. The result is not difficult to imagine, considering the fact that there are very many thousand species of insects most of which are harmful to vegetation.

Volumes of entirely reliable information regarding the food habits of birds, is being compiled, being the results of the investigations of the Biological Survey Bureau of the Department of Agriculture. **Accurate knowledge** as to the food habits of birds can only be obtained by examining and listing the food contents of the stomachs of thousands of birds shot for this purpose in all sections of the country and at all seasons of the year.

This is work that is being extensively carried on by the Biological Survey. The results of such examinations are a revelation, not only as to the almost unbelievable numbers of insects found in individual stomachs and the nature of food contents otherwise, as well as basis for the estimates of millions of tons of weed seed destroyed annually in the U. S. by the Finch family.

It has been said that only the enormous reproductive capacity of insects makes it possible for relatively any considerable numbers of them to survive the terrific warfare waged against them by our birds.

That members of some species of birds do at times prove themselves injurious to maturing or matured fruits and a menace to the fruit grower when present in considerable numbers is admitted, but these are very limited in numbers. Some consideration is due them for the fact that up to the time of maturing fruit they have been faithful workers in destroying insects that would otherwise menace or greatly damage orchards. Why condemn all birds for the depredations of the very

few? as many seem to do.

Nearly all birds fond of fruit seem to prefer wild varieties in preference to cultivated when obtainable, and no doubt much protection could be secured by plantings of wild varieties to some extent about one's premises.

Water—water—WATER—is the almost constant call of all birds during the hot dry summer days and how remarkably few people seem to hear or at least heed the call. Often fruit is damaged, not for the pulp as food but for the fruit juices when water is not obtainable.

The remedy, or a partial remedy suggests itself. Through the records provided by the banding of birds, the Biological Survey is coming to know the habitat and movement of all of our birds at all seasons of the year. This phase of knowledge of the habits of birds is rendered possible through the co-operative work of nearly 2,000 societies, bird clubs, and individuals, located in nearly all sections of the U. S. and Canada as well as Mexico and Central and South America.

Considering the insect destroying birds, it seems that no matter what particular class of insects we consider, Nature seems to have planned that a certain group of birds shall in the main devote the major part of their work to the destruction of this particular class, as for instance the wood-peckers that devote their energies mostly to moths, beetles and the larvae commonly known as borers that destroy our apple, plum and shade trees.

Another example is the hawks, of which about 12 species visit our state, either as residents or visitants. Only 2 or at most 3 of this number destroy poultry or game to any considerable extent. The remaining members subsist almost entirely on field mice, rats, gophers, young rabbits, snakes and lizards, as well as many of the larger insects, including grasshoppers. They are classed as being among the most valuable of our birds.

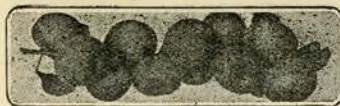
Limited time will not permit of further discussion of the habits of birds.

In passing—I have been speaking only of economic values which is only one phase of bird life.

Let us not overlook the appeal of bird beauty of plumage and melody of song and the happiness, good cheer and friendliness which they reflect into our lives.

Could we vision a world utterly devoid of birds and bird songs? any more than we could a world devoid of the beauty and fragrance of flowers? A world where no melody of bird song floated down to us from tree tops, filtered out to us from leafy thickets, greeted us along our path-ways, or met us in the open. Surely a great shadow of drab would veil the world were we to be forever denied the beauty of flowers and birds and the melody of bird songs.

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ENGLISH HORTICULTURE

(Continued from page 93)

making everything count. For instance their aim, it appeared to me, was to see how much and how good a grade can be produced from as small an area as possible.

Some may say that it is all right for the people of England to be horticulturally minded because it is easy to do things along that line in such a climate. All well and good — but just one instance — Dakotans do not have to worry about a pea soup fog — which is anything but conducive to plant growth. And during the growing season things grow fast and vigorously while at no time do growing plants develop rapidly in England. Everything there seems to move at a slow, even tempo.

When people are enlightened, horticulturally, they also realize what an achievement it is to make certain things develop and flower or fruit, thus considerably eliminating the opposition to expenditure of funds for places of research and improvement, likely to be brought up by those who are ignorant concerning the subject.

The efficiency found in some of the horticultural centers of Germany, Holland and other continental places combined with English thoroughness and care would certainly give the U. S. an enviable rating.

Very striking to a Dakotan was it to see people whom one could tell were in very ordinary circumstances buying their plants or flowers with which to adorn their homes, or those of friends, while doing their regular shopping. These seemed to be just as essential in their lives as food and clothing.

Apartments were not very popular. One reason probably being that nearly everyone wants a little space for growing things. To those in ordinary circumstances living where space for growing vegetables could not be had with their homes, nearby good sized tracts of land, not built up, are divided into small pieces, these being called allotment gardens where on a few square feet one would stand agog at the amount and variety of things they can raise during a year's time.

People of Dakota may be interested in knowing that the ordinary Colorado Potato Beetle is not found in England and every possible precaution is being taken to prevent its entering. Sweet corn on the cob or otherwise is almost an unheard of thing. Cabbage and Brussels Sprouts are the most widely used vegetables.

Canned goods (vegetables, fruits or otherwise) are not much used — in fact many stores were stressing them early in 1936 since the sanctions with Italy had cut off supplies of fresh fruits and vegetables and vast quantities seemed to be coming across from Canada and other places—in tin cans of course. But they did not seem to go over

very big as long as fresh vegetables and greens of any kind could be obtained.

To see the Covent Market (London's wholesale center for fresh fruits, vegetables, and flowers and plants) in the early morning hours as I did during the seasonal rush of Christmas week is a sight not soon forgotten. The stock is assembled during the night and selling starts about five o'clock in the morning—finishing about nine A. M. Size of sales varies from the few shillings worth to flower women from historic Picadilly Circus to thousands of pounds worth to some of the large concerns. Every continent was represented in the great assembly of agricultural and horticultural products mostly of very good quality.

Thus I am sure that with U. S. A. advantages and profiting from the experience of our friends across the water, America could soon attain a horticultural rating comparable to our great achievements in other lines.

Further quoting Henry Van Dyke:

I know that Europe's wonderful yet something seems to lack,

The past is too much with them and the people looking back;

But the glory of the Present is to make the Future free

We love our land for what she is and what she is to be.

Oh it's home again and home again—America for me

I want a ship that's westward bound to plough the rolling sea,

To the blessed land of Room Enough beyond the ocean bars

Where the air is full of sunlight and the flag is full of stars.

HOW THE BING CHERRY GOT ITS NAME

by

W. S. Campbell in "Virginia Fruit"

A good many years ago when it was first learned that the state of Oregon was especially adapted to the production of cherries, a man with a turn for horticultural experimentation, named Seth Lewellyn of Milwaukee, Ore., set out to find some new varieties of cherries through the process of growing many thousand seedlings. After they had made sufficient growth, he would discard all but a few of the most promising. Employed to help him in this work was a Chinaman named "Bing." One year as they were culling the unpromising seedlings from those that had made sufficient growth, Lewellyn picked one or two from a certain row and instructed Bing to destroy the balance. Down at the end of the row was a seedling that had for some peculiar reason attracted the Chinaman's attention, and he asked

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NEWSLANTS

by

Harry A. Graves, Fargo

Mr. Wm. A. Smart of Minot has an interesting experiment on the lawn of his home. Mr. Smart seeded part of his lawn to Crested Wheat grass and another part to a commercial lawn grass mixture. The latter was seeded on a northeast slope and was very patchy while the crested wheat grass was seeded on the level and produced a good stand. Crested wheat is a bunch grass and for that reason a few bare areas were noticed where it was planted. The slope seeded to the lawn grass mixture apparently was not eroded by water. While Crested Wheat grass may never become important as a lawn grass where sod forming grasses can be grown successfully, Mr. Smart's lawn is surely many jumps ahead of a lawn badly burned or worse still no lawn at all.

Two samples of white Juneberries have been received the past week, one from Einar Erickson of Dazey and the other from C. W. Wolla, county agent of Nelson county. Both samples were picked in the vicinity of Stump Lake, and consequently it is possible they may have come from the same clump of trees. These berries are believed to be a variation of the species common to North Dakota, *Amelanchier alnifolia*. White Juneberries were reported several years ago in the area near Leonard, N. Dak., and seedlings of this white fruit are growing on the Horticultural Plots of the North Dakota Agricultural Experiment Station, but none of these seedlings have produced white fruit.

It was interesting to note in the last issue of the magazine that three generations of the Yeager family played important roles in the development and christening of the new Red River crabapple. Dr. A. F. Yeager received pollen of the Delicious apple variety from his father, Charles Yeager of Bazaar, Kansas. The pollen arrived one month too early for the Dolgo blossoms and had to be held in a desiccator until the Dolgo pistils were receptive. The actual christening of the new variety was performed by Albert Yeager, Jr., when he broke the flask of Red River water over the trunk of N. Dak. No. 5, dubbing it "Red River." There you have the three generations: Charles, Albert Sr., and Albert Jr.

Although cut back severely this spring in order to secure wood for propagation, the Tamarix hedge on the N. D. A. C. Horticultural Plots is again 5 feet high. This hardy hedge with foliage resembling a cedar tree has twigs tipped with spikes of feathery appearing pink flowers in June. One particular plant of this shrub started from a cutting this spring was in bloom within three months.

HOW THE BING CHERRY GOT ITS NAME

(Continued from page 95)

his employer to let that one stand. The employer refused and the Chinaman proceeded to pull out the seedlings in that row but left the especial cherry for which he had pleaded. The next day, Lewellyn noticed that the Chinaman Bing had not followed his instructions, called him to task and again ordered him to remove that seedling, but the Chinaman pleaded so earnestly, that at last Lewellyn said, "Well, keep it. If it is any good I will call it Bing." Today, it is one of the most popular commercial varieties on the Pacific coast.

THE RED-HEADED WOODPECKER

(Continued from page 86)

they seem partial to corn, and this often supplies their main winter food. The red-heads are familiar birds of the roadside where their conspicuous coloration attracts attention as they fly from post to post. In the last few years much has been written about the frequency with which they are killed on the highway by automobiles.

Telephone poles are favorite perches and nesting places as well. Dead tree limbs are of course regular nesting sites. A few years ago I observed where a red-head had made a nesting place in a dead maple branch. The next year the flickers, which appear much earlier, occupied the place. The red-head's character has suffered through reports of their feeding upon eggs and nestlings of other birds. There are even a few reports of their eating hen's eggs. Examination of a large number of stomachs by the U. S. Biological Survey failed to show that the egg-eating habit was common since pieces of shell were found in only one percent of those examined. Approximately two-thirds of the total food was vegetable material, of which acorns and corn formed a large part. Fruit is eaten commonly and there are a number of reports of damage to cherries, raspberries and strawberries.

Insects, especially beetles, form a considerable part of the food. Grasshoppers are eaten freely when they are abundant. One rather unusual habit is that of storing food in cracks and holes in trees, posts or other places. Acorns, beechnuts, other seeds and frequently insects are thus saved. The closely related California Woodpecker feeds chiefly upon acorns and is noted for its persistent storing of these.

BIRD HABITS

(Continued from page 94)

Aside from the sacred music of the songs of human Mother love, there is no music of earth that can approach the melody of joyous springtime bird song. It is a lure to comradeship with the great outdoors, it is a gift from God to make human life cheerier, brighter and better.

(The End)