Circular 13A
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THE DEPARTMENT OF EDUCATION

ONTARIO

CIRCULAR 13A

Published by the Department of Education, in co-operation with the Department of Agriculture for the free use of the pupils in schools where instruction is given in Elementary Agriculture and Horticulture.

CHILDREN'S GARDENING

Marden School Garden, Wellington Co.

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S. S. No. 6, Raleigh and Dover, Kent Co.

MY PLANT

I dropped a seed into the earth. It grew and the plant was mine.

It was a wonderful thing this plant of mine. I did not know its name and the plant did not bloom. All I know is that I planted something apparently as lifeless as a grain of sand and there came forth a green and living thing unlike the seed, unlike the soil in which it stood, unlike the air into which it grew. No one could tell me why it grew nor how. It had secrets all its own, secrets that baffle the wisest men; yet this plant was my friend. It faded when I withheld the light, it wilted when I neglected to give it water, it flourished when I supplied its simple needs. One week I went away on a vacation, and when I returned the plant was dead; and I missed it. Although my little plant had died so soon it had taught me a lesson; and the lesson is that it is worth while to have a plant.

Bailey: The Nature Study Idea.

S. S. No. 12, Chatham Tp., Kent Co.

He is happiest who hath power
To gather wisdom from a flower.
—*Wordsworth.*

MY GARDEN JOURNAL

....
Name of Pupil. *School.*

.....
Teacher.

HOW TO KEEP YOUR GARDEN JOURNAL

If you are going to take up gardening as one of your school studies, you will find it a useful thing—and pleasant too, it is to be hoped—to keep records of your experiences from year to year in a garden journal.

Let this booklet be the commencement of your Journal. Make a cover for it out of cardboard, a little wider and longer than these pages. Cover the cardboard by pasting bookbinder's linen over it if you can procure this material. Punch small holes through the front and back covers so as to permit a lace to be used for holding the leaves together. If the covers are made with a "break" in them near the left-hand edge, this will provide a hinge that will allow the book to open readily even when the laces are tight. For additional pages, cut out paper exactly the same size as these pages and punch holes at the proper places for the lace. Make the book strong and neat, so that you may keep it as a souvenir of your school days. You can add to its pages year after year. Other circulars published by the Department of Education or the Department of Agriculture may also be included. It will be pleasant to look over the records of your gardening experiences in the years to come, and there may be, too, valuable records to which you wish to refer.

Keep records of all the interesting things that you do or learn in gardening. Insert the plans of your gardens. Tell how you prepared the ground, planted the seed, and killed the weeds. Keep notes on the dates you planted, how long before the vegetables were ready to use, when the flowers bloomed or were killed by the frost. Make records of the birds you saw in the garden, and of the doings of toads, snails, earth-worms, and insects. Write accounts of your visits to flower shows, fruit shows, grain shows, gardens, and parks, and insert pictures of them if possible. Include the colour studies and drawings of the plants that you make in your drawing lessons. Describe any exhibition of flowers and vegetables which your school may hold. Paste in newspaper articles and illustrations which may be of use for reference.

Paste in also the envelopes that your seeds come in. With liquid glue or good mucilage, fasten samples of the seeds on stiff cardboard cut to the right size, and label them neatly. Learn to dry and press plants so that you may mount specimens of those that you grow, showing them as little seedlings as well as the older plants; also preserve some of the autumn leaves by waxing and mounting them.

Keep records of all the operations of farming through the seasons. Insert maps showing the fields on your farms and the crops that were grown on them.

You might even insert recipes for preparing the vegetables that you grow for use on the table. This would be part of your Domestic Science studies.

Write all the records in ink and keep them neat. Do not crowd the work in the book. Keeping a Garden Journal will help you to become a good gardener as well as a good scholar.

In all places, then, and in all seasons,
  Flowers expand their light and soul-like wings,
Teaching us by most persuasive reasons
  How akin they are to human beings.
—Longfellow.

GARDEN TOOLS AND THEIR CARE

In order to carry out your work in the best possible way, you should have your own tools or some controlling share in those belonging to your father.

Do not buy cheap tools that are meant for toys. Get fair-sized tools of good quality always. For turning the ground in the Spring, a spade or digging fork

S. S. No. 13, Charlotteville Tp., Norfolk Co.

is needed. For making the soil fine, cleaning out stones, and gathering rubbish, a rake is necessary. For planting the seed a garden line or straight-edged board will be required. For cultivating the garden throughout the season a hoe is needed. A twelve-tooth rake will not be too large. The hoe should have a strong blade and, if the soil is stony, it will need to be kept sharp by filing. For weeding in close to the plants in the rows a hand weeder is very useful; there are different patterns of these, but the claw and trowel shaped forms are to be preferred.

There should be one place to keep the tools when they are not in use. You should form the habit, moreover, of putting them away in this place after using them. Tools should never be put away dirty or wet. Rub the metal parts with an oiled or greasy cloth to keep them from rusting. In putting them away for the winter, clean off the rust with sandpaper or emery cloth and apply a

thin coat of vaseline or tallow to the iron; in addition, oil the wooden parts with linseed oil; keep them in a dry place. Good tools when properly cared for will last for many seasons, but they are easily spoiled by carelessness or neglect.

There is a need, too, for a watering-can at certain times. But if you read carefully under the heading of Mulching, you will learn that the need is not so great as is generally believed. After using a can, empty it carefully and hang upside down.

WHAT TO GROW AND HOW TO PROCURE SEED

It is always best to look ahead and decide beforehand what you would most like to grow in your garden. You will have to consider also what kind of plants will do best in the particular piece of ground you have at your disposal. Plants are like people, they all have special requirements, and particular likes and dislikes. To make a wise choice, you must try to find out all you can about the

Home Gardening—Carleton Ave. P. S., Hamilton.

plants you wish to grow, and when you are first starting it is much better to choose the commoner plants which are almost certain to grow well under any conditions. You can leave the others until you have had more experience. Here is a list of flowers and vegetables you can choose from:

Flower Seeds.—Zinnias, Sunflower, Shirley Poppies, Morning Glories, French Marigolds, Pot Marigolds, Nasturtiums, Sweet Peas, Sweet Alyssum, Portulacas, Mignonette, Asters, Corn Flowers, Candytuft, Eschscholtzias, Verbenas, Four O'Clocks, Sweet Sultanas, Calliopsis, Nigella.

Vegetables.—Radish, Cress, Kale, Lettuce, Onion, Parsnip, Carrot, Salsify, Beets, Turnips, Spinach, Corn, Beans, Peas, Squash, Cabbage, Tomatoes.

When you have become more interested in your garden you will most likely wish to improve it so that it will go on looking better every year. To do this it is a good plan to put in some plants which continue growing from season to sea-

son. These are called *Perennials* and they include some of our most beautiful garden plants, such as Larkspurs, Columbines, and Hollyhocks.

It is quite a simple matter to grow these yourself from seed though you will have to be a little more patient in waiting for them to come into flower, than in the case of the *Annuals*. Some of them may bloom a little the first summer, but in the majority of cases you will not get results till the next season. Seeds of perennials may be planted quite late in the season, but it is better to get them in as early as possible, so that they make a good growth the first year. Choose a sheltered spot in the garden, not too sunny, and plant the seed in rows. The little plants should be shaded in warm weather. When about three inches high they may be shifted to their permanent quarters. They should be protected in winter with a mulch of long straw and manure. Some good perennials to grow are the following: Larkspur, Sweet William, Hollyhocks, Bleeding-Heart, Iris, Foxgloves, Gaillardias, Canterbury Bells, Perennial Sunflowers, Columbines, Forget-Me-Not, Peony, Oriental Poppy, Phlox, Periwinkle.

S. S. No. 8, Beverly Tp., Wentworth Co.

In preparation for the purchasing of seeds, you should procure seed catalogues from some of our reliable seed firms a month or two before gardening work commences. Study them carefully, make your selection and order the best quality of seeds. Send in your order early, for though you may have your seed too early for use, you will be the better enabled to settle your plans and take advantage of an early season of growth.

LOCATING AND LAYING OUT A GARDEN AT HOME

Choose a good location for your plot. Do not have it near a building where it would be shaded, or injured by rain dripping from the roof. Do not have it too near a tree where shade or roots might interfere with your plants. Have it, if you can, where it may have a full exposure to the sun, rain, and air. Successful gar-

dening may, however, be carried out in borders along fences, using the fence itself as a support for climbing plants. If the planting is to be done in rows, it will be of advantage to have them running north and south as one row does not, in that case, shade its neighbour.

The size and shape of the beds will depend on the space that may be allowed for them in the family garden. Do not try to work too much ground. A plot four feet wide and ten feet long is recommended as suitable in size and dimensions. This will be large enough for both flowers and vegetables, allowing for a narrow path between them. It may be advisable in some cases to use the larger part of the plot for the vegetables. Or you may be able to get enough land for a larger plot than this; if you think you can look after it properly, do not hesitate to take it; if you plan to sell your products you will need such. In some cases it might be thought best to grow your flowers as a border instead of in a separate plot of your own.

S. S. No. 13, Blenheim Tp., Oxford Co.

After deciding on the location and size of the beds, measure out the plots very exactly with a yard-stick or other measure, and drive stakes down at the corners. These stakes will be best an inch square and about a foot and a half long. When the bed is all planted they should be driven down so as to show only an inch or two above the ground.

It is a mistake to have narrow paths. Make those about your plots at least a foot and a half wide. If the soil is light or sandy do not have the beds higher than the paths; if the soil is not sandy a little of the earth from the paths might be raked onto the beds to make them a little elevated. But this should not be overdone. In School Gardens the paths should be at least two feet wide between individual plots, and three feet between the rows of plots.

Even in the stifling bosom of the town
A garden in which nothing thrives
Has charms that soothe the rich possessor;
Much consoled that here and there
Some sprigs of mournful mint
Grace the spot he cultivates.

—Cowper.

PREPARATION OF THE SOIL

In the Fall.—The best time to begin the preparation of the garden soil is in the fall. The ground should be well cleaned of all weeds and rubbish and dug deeply, with manure added if the soil needs enriching. Leave the surface rough and uneven so that the winter weathering may help in killing weed seeds or roots and also work its beneficial changes on the soil particles. Winter's work on the soil is a very important one.

In the Spring—Do not be in too great a hurry to work the soil. If the earth is so wet that it sticks to the spade or holds in a firm lump when a handful is squeezed, it should be left untouched for a few more days of drying. When it crumbles readily under the spading or after pressure in the hand it is mellow enough to make a commencement.

If the garden has been dug in the fall—and it should be—it will likely be easy work to turn it over again in the spring with a spade or digging fork. If it has not had fall preparation this will not be so easy. Dig one foot deep and mix in some well-rotted manure if this has not been done previously. See that the

Raglan School, Kent Co.

surface of the ground is even, filling up any holes or hollows from the higher portions. To improve a heavy clay soil mix in some sand, leaf mould, or fine manure; this will prevent it baking into a hard cake on the surface. Break all lumps just as fine as possible and remove stones and rubbish.

Raking.—Rake the bed until the surface is very fine to a depth of two or three inches. Do not be satisfied with having it "good enough"; have it as fine as it can be made with a rake. The most effective work in preparing the soil is done after many people would say it is ready for planting. Make the soil firm by tapping it down with the rake or tramping over it. Do not sow seed in soil before it has settled or been firmed, nor before the soil is warmed through.

PLANNING THE PLOT AND PLANTING THE SEED

Have a clear plan in your mind of your garden that is to be. Discuss it with your parents and also your teacher and classmates. Decide on the width between the rows, the number of rows and the portion of the plot that you intend for flowers. The better you plan, the better your garden should be. Draw a map or plan of it, and follow this in your planting. Be sure to allow plenty of space for the plants—not for the time when they are young, but for the time when they are full grown. Do not be stingy with space.

Remember again that in preparing the seed bed the soil should be firmly consolidated and the rake used until a very fine and even surface is obtained.

Put in the seed according to the instructions given on the seed packets or, what is, perhaps, a safer guide, follow the advice of older local gardeners. Seeds of different sizes require to be planted at different depths. The rule for the depth is to cover seeds to four times their size in diameter. Very fine seed such as Petunia should be scarcely more than covered; stirring the soil about them very lightly is all that is necessary. Plant them in a straight line, using the garden line or a straight-edged board as a guide for marking the drill.

Cover the seed lightly and press the earth over it gently and firmly with your rake. If the soil is heavy—that is, has much clay in it—it will be sufficient to firm the earth over the seed by tapping it with the rake or pressing the planting board on it. If the soil is light—that is, has much sand in it—you will require to press the earth over the seed much more firmly. This is needed to bring the particles of the soil closely about the seeds so that they may be supplied with moisture needed for their germination.

Rittenhouse School, Lincoln Co.
Pupils' Fruit Exhibits at School Fair; tables in basement.

Mark the line where the seeds are planted with stakes placed at the ends, so that the weeds can be looked after between the rows of seeds that may be slow in sprouting. It will be advisable to write the name of the seed on the stakes, for it is very easy to forget what you have planted in the rows.

If the ground is very dry, water it heavily the day before planting rather than after the seed is put in; and until the young plants appear do not allow the seed-bed to become dried out. Do not allow a hard cake of soil to form over the seeds, as you can see this would hinder the little plants from pushing their way up into the air. And there are two other ways in which it might work harm; it would prevent the air from getting in about the roots and at the same time allow moisture to get out.

While the seed of such plants as beets, onions, carrots, peas, parsley and spinach may be sown safely as soon as the ground is fit to work, the seed of such tender plants as beans, corn, pumpkin, squash and cucumber should not be sown until danger of frost is past. The directions on the seed packets or in the seed catalogues will guide you in this matter.

To me the meanest flower that blows can give
Thoughts that do often lie too deep for tears.

—*Wordsworth.*

PROTECTING SEEDLINGS

If a spell of hot, dry weather sets in about the time the flower seeds are sprouting, the little plants can be helped greatly by shading. Excessive sunlight is very hard on tender seedlings. The shading is most effectively done by using screens made of thin strips of wood nailed together on a frame. These can easily be made with laths, nailed about three-quarters of an inch apart, to two end strips of wood. The advantage in the use of these screens lies in the fact that no part of the plant comes in contact with the direct rays of sunlight for a sufficiently long period to be scorched or injured, a moving shadow passing over the leaves all the time. At the same time the growing seedlings are not unduly deprived of light and air.

Little flower; but if I could understand
What you are, root and all, and all in all,
I should know what God and man is.

—*Tennyson.*

A Grey County School Garden.

MULCHING, WATERING, AND CULTIVATING

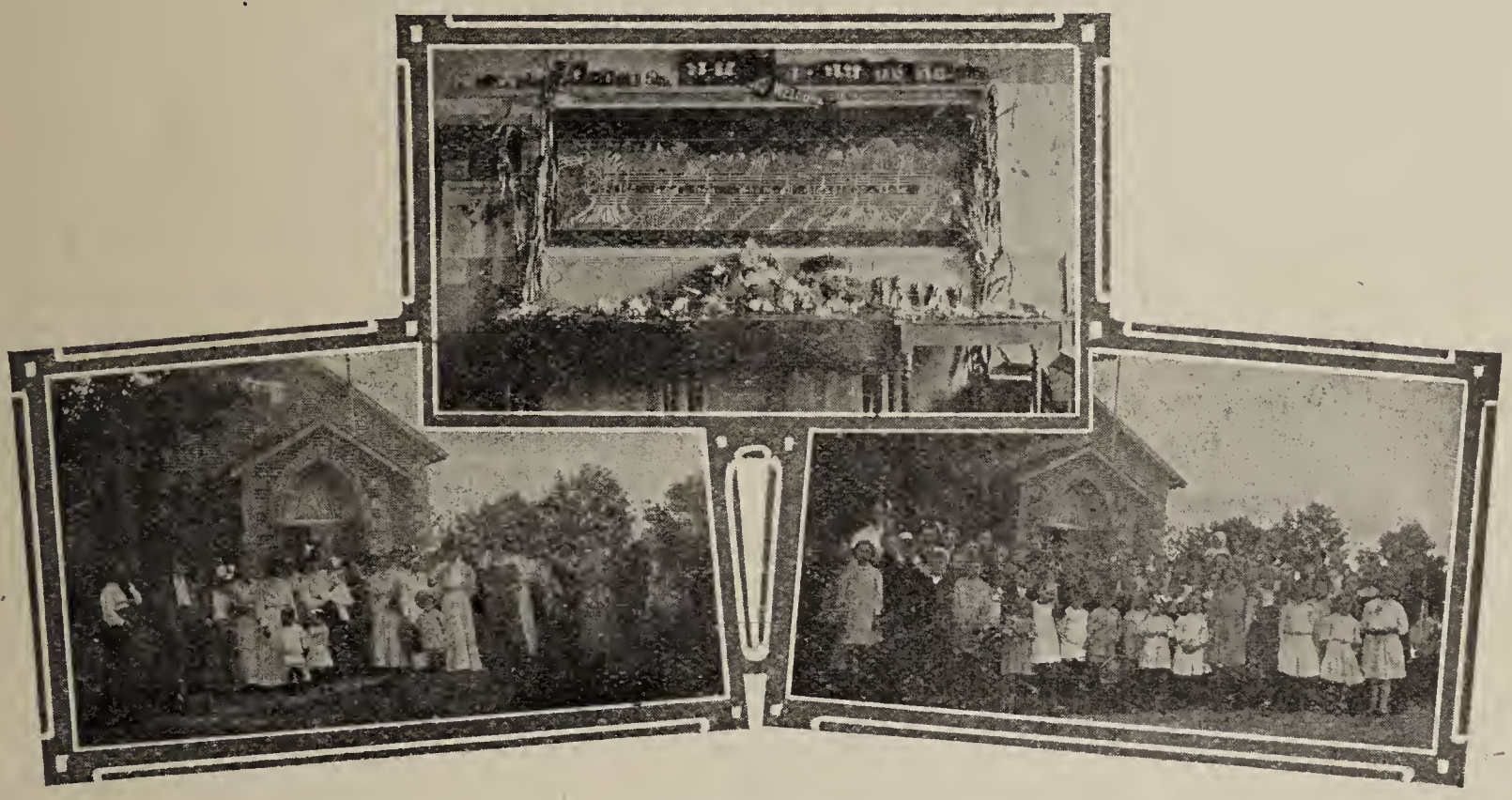
The garden should be so worked that there will not be much need of watering. This means that you should so treat the soil that it will not lose its water readily by evaporation. You can do this by keeping a mulch on the surface. Twice a week at least and always the morning after rain, stir the surface of the soil between the rows of plants to a depth of an inch or more. Do this with the rake or if sprouting weeds are to be cut, with a hoe. This broken top layer of soil prevents the water below from rising to the surface to be evaporated by the sun's heat. This loose top layer is a mulch. In this way it has been said, "A garden can be watered with a rake"; and it is the best kind of watering for it is a great help in keeping down weeds, besides a saving of water. Do not mulch when the soil is so wet that it works muddy. When, however, the season is dry and the plants are in need of more water than their roots can find for them below the mulch water should be applied. This should be done in the afternoon or evening, and sufficient should be given to wet the soil to a depth of four inches. The next morning, or as soon as it is dry enough, the soil should be mulched just as after a rain. It is a mistake to

water lightly; it is better to apply a generous amount and less frequently. As it is often done, watering does more harm than good. In some cases, such as in growing Sweet Peas, generous and frequent watering may be advisable, but this practice when once started should be continued regularly.

In many cases the mulching may be all the cultivation that is required for the plants. If the soil around the roots of the plants is loose and open, it will not need stirring much. If, however, the soil is not loose and open, it should be frequently stirred with the hoe. This brings air to the roots and enables the plant to breathe freely. This is one of the things that is brought about by cultivating the ground. Plants as well as animals need fresh air for their proper living.

THINNING AND TRANSPLANTING

In most cases there will be a greater number of plants springing up from the seed than are needed. If it is desirable to have strong, healthy plants, it is necessary then to remove some of them before they reach a size at which they will



S. S. No. 6, Fenelon Tp., Victoria Co.
The School Fair brings the Parents to visit the School.

hinder the best possible growth of the plants that are to be left. Thin out two or three times, starting when the seedlings are large enough to handle.

It will be best to do this in the evening or on a cloudy day and at a time when the soil is moist; with such conditions the fine rootlets and root hairs of the plants will not be violently disturbed. If the soil is dry it should be well watered some time before the thinning. If the little plants are not to be thrown away do not pull them out roughly but remove them by means of a small, flat, thin stick, an old kitchen knife or a little trowel, lifting them out with a little soil around their roots. They can then be transplanted into another part of the garden or given to friends. Do not hesitate to thin the plants out well and at the final thinning to allow sufficient space for the fullest possible growth of the plants. Remember that successful gardening is measured in quality and not quantity. No overcrowding should be permitted—one excellent plant is more to be desired than two of a poorer quality.

PICKING FLOWERS

The chief end after which plants strive is to produce seed. When annuals, such as those you are probably growing, have ripened seed, their season's efforts are over. They die down. You can see then that if you prevent them "going to seed" you will keep them from dying down and thus prolong their flowering season. Pick the flowers then every day, and if you have more than you need for your home, bring them to school. And do not forget your neighbours or the sick ones. Flower gifts are tokens of thoughtful friendship and affection.

GATHERING SEED

You can produce your own seed for next year's garden by allowing some of the flowers to go to seed. For this you should set apart the very choicest plants. For in plant life it is true that the most vigorous plants produce the best offspring and you should aim, therefore, to have seed from the best plants. It will be well to tie a piece of coloured yarn or a tag on the plants which you select. Gather the seed before it is so ripe that it will fall and be lost. Clean and dry it thoroughly and put it away in an envelope on which you record particulars about the plant and the date of collecting.

You will be able also to grow vegetable seed in the one season from some of the vegetables, such as beans, corn, lettuce, radish and spinach. To produce seed of beets or carrots, you will need to plant a root grown the previous season as these are biennials. To produce onion seed you will have to plant the large bulb of the previous year's growth. With the vegetables, as with the flowers, the very best plant should be chosen to produce the seed. As a rule it is better to depend on the seed grown by practical seedsmen rather than on that which the ordinary gardener can grow, but you can find out at least how flower and vegetable seeds are produced.

GARDEN RUBBISH

Such rubbish as stones, cinders, and chips should be removed entirely, buried deep, or built into an out-of-the-way rockery. Vegetable matter, such as weeds, beet or potato tops, may be got rid of well and profitably by drying and burning; the ashes thus secured will prove a valuable fertilizer. No wood ashes should ever be wasted or sold when the garden needs enriching. Coal ashes, however, have no such use or value.

GROWING BULBS

Outdoor Culture of Bulbs.—Bulbs planted in the fall bloom early before the ordinary plants of the garden come into flower; by this fall planting they are able to have a good system of roots established before winter sets in and be ready for a quick growth of leaf and flower in the spring. You will find the growing of them interesting and their early bloom very acceptable. Should you undertake the work, you will need to arrange for catalogues and bulbs shortly after the opening of school in September.

Tulips, Narcissi (Daffodils), Dutch Hyacinths (not Roman Hyacinths), and Crocuses are the commonest and best; these can be had in a great variety of colours both single and double flowering (Crocuses, however, are only single flowering). On the whole the Tulips will be found most satisfactory, especially for

temporary planting. Narcissi and Darwin or Cottage Garden Tulips are better for permanent planting for late flowering in borders or beds. The Hyacinths are somewhat tender and will require covering with three or four inches of loose manure about the middle or end of November; this should be removed in dull, mild weather about the first week in April. Crocuses suit best for edgings or as borders; they are planted only three inches deep and with an inch space between.

Some people like to grow tulips in formal arrangements. Others prefer to have them in clumps about eighteen inches in diameter, scattered amongst other plants in a large border or bed. Plant about the first or second week in October. Put the bulbs four inches under the surface, and with from four to six inches space between. Never put manure near bulbs when planting. If the ground is poor the manure should be dug in below the depth at which the bulbs will be placed. If the ground is of a heavy, clayey nature, sandy loam or leaf mould should be dug in before planting to make the soil lighter.

After the flowers have bloomed pick off all the seed pods. If it is desired to use the bed for summer plants, such as Geraniums, it will be best to lift the Tulips carefully, leaves and all, at the time of setting out the summer plants, and heel them in thickly in a small trench and cover with about four inches of soil in an out-of-the-way place. Mark the spot with a stake. About the end of July or early in August dig up the bulbs and partially dry them in shallow boxes, outdoors or in a shed; then place them away in a cool, dry shed or cellar until planting time comes again.

Other plants for summer may be grown in the Tulip bed without lifting the Tulips; or seeds of annual flowers such as Phlox Drummondi may be sown; in such cases care will be required not to injure the bulbs when digging or cultivating. The Tulips will come up the next season in the same design if not disturbed, but the summer plants do not succeed so well as they do when the bulbs are dug up as described.

Indoor Culture of Bulbs.—If indoor bloom is desired for the winter months, the planting should be done in pots in October or early November. Crocuses are not recommended for pot culture; the other bulbs should give satisfaction. Two or three bulbs of Tulips, Narcissi or Roman Hyacinths may be planted in a four or five inch pot; Dutch Hyacinths, one bulb in a four or five inch pot. Use loamy potting soil or good garden soil; in the latter case mix about one-fifth fine sharp sand with the earth and a little well-rotted barnyard manure. Fill the pot about two-thirds full with earth; set the bulb in the soil with its top about an inch below the top of the pot, then fill the pot loosely with earth level full; press down the soil fairly firm so that the surface of soil will be about half an inch below the top of the pot to hold water and at the same time the top of the bulb will be covered with the soil about half an inch deep. Water well and place the pot in a dark, cool cellar; cover it over with coal ashes, sand or light soil (the two last named are best) to a depth of two inches, so that it will not dry out. In from four to six weeks there should be a good root development which may be judged by examining for roots at the bottom of the pot.

A vigorous root system is the one main thing to secure to enable the plant to produce healthy leaves and foliage, and give good flowering results when it is brought into the light. If the pots are taken out of the sand or covering when well rooted they can be left in the cellar if desired until the top growth is two inches in height. The plant may be brought up then and placed in a window. Keep the soil well moistened but not soddened until they have done flowering. Do not let the soil become dried out; if you do the chances for a satisfactory flowering are greatly

lessened. For this work, Narcissi and Roman and Dutch Hyacinths are more satisfactory than Tulips.

Owing to the unnatural growth that the plants have been forced into, the bulbs are not of much further use; their recovery of vigour is tedious and uncertain and they are seldom fit for pot culture the second year.

GARDENING AT SCHOOL

This work is being carried on now in many schools in Ontario; and, indeed, throughout the civilized world at large, school gardening has become quite common.

There are many things you can do along the lines of gardening at your school. Besides having beds and borders for flowers and vegetables you might, for example, join in making your school grounds and buildings more attractive with shrubs and vines. Or you might arrange for some experimental or observation plots. In these you could, for example, grow samples of different kinds of grains or vegetables and compare them: or you could plant two plots of potatoes and find out what benefits arise from applying manure to one of the plots. For other suggestions for this line of gardening you may apply to the Director of Elementary Agricultural Education, Ontario Agricultural College, Guelph.

THE ONTARIO AGRICULTURAL AND EXPERIMENTAL UNION

The Experimental Union, as it is usually called, was formed in 1879 for the purpose of encouraging the scientific study of farm crops and farm operations amongst the students of the Ontario Agricultural College.

While actual membership has been restricted to students, ex-students, and teachers of the College, it offers every one the opportunity of taking part in its co-operative experiments. Up to the end of 1911 over 70,000 experiments were carried on by its members and associates in the Province of Ontario in different lines of work relating to Agriculture—Farm Crops, Fertilizers, Poultry, Fruits, Vegetables, and Forestry. This has helped very much in advancing the chief industry of the Province.

A Schools' Division of this Union was organized in 1909. It aims to adapt the work of the Union to the needs of the schools, giving to our boys and girls a training in careful work and observation, so that when they are older they may take up some of the larger experiments or solve for themselves the problems that will arise in their daily work. By such means as these the Province of Ontario may come much nearer to attaining its possibilities in the development of its agricultural resources. If you would like to take up some branch of the work at your school write to the Director at the Ontario Agricultural College. You will be able to secure such seeds, bulbs, forest tree seedlings, shrubs and vines as may be required at your school.

To be a good member of the Union implies—

1. That you will learn to look forward and plan your work.
2. That you will follow instructions carefully.
3. That you will do your work well and not neglect it.
4. That you will observe closely what is happening to the plants in your garden; that every day you will learn a little more and become a little wiser and a little more patient.

5. That you will grow the very best flowers and the very best vegetables that can be grown in your garden, and the very best grain in your experimental plots, and that you will not be satisfied with anything but the best.

6. That you will be interested in your schoolmate's efforts, ready to help him and ready to acknowledge his helpfulness to you.

HELP FROM THE AGRICULTURAL COLLEGE

Under the Department of Agriculture the Ontario Agricultural College, Guelph—called sometimes, *The Farmers' University*—is supported by the Province for the purpose of helping her citizens in the many problems connected with the cultivation of the land, the production of crops and the raising of farm animals. Most of the free bulletins published by the Ontario Department of Agriculture deal with these matters, and some of them may be found helpful to pupils in the schools—especially where gardening studies are carried out: No. 158, Insects and Fungous Diseases Affecting Fruit Trees; 171, Insects and Fungous Diseases Affecting Vegetables; 173, Birds of Ontario; 179, Fruits Recommended for Ontario Planters; 187, The Codling Moth; 188, The Weeds of Ontario.

The schools of the Province and the pupils in the schools are invited to make use of the College whenever in their garden work they meet difficulties requiring outside help. The bulletins will be sent upon application.

Correspondence in this connection should be addressed to the Nature Study Department.

BOOKS AND MAGAZINES

You may wish to read further about gardening work. If you do you may be able to secure some of the following good works for your own or the school library.

Manual of Gardening, Bailey	$2 00
Flowers and How to Grow Them, Rexford	50
Vegetable Gardening, Green	1 00
Principles of Fruit Growing, Bailey	1 00

The Canadian Horticulturist, published at Peterborough, Ontario, 60 cents per annum, will be found very instructive; it is published monthly.

NOTE:—Additional copies of this circular will be supplied to schools free, for the use of the upper classes, on the application of teachers. In applying, give the number of the school, the township and the county.

Address the *Director of Elementary Agricultural Education, Ontario Agricultural College, Guelph.*

Springwater School Garden and Tool House, Elgin Co.

MY GARDEN

A Garden is a lovesome thing
God wot!
Rose plot
Fringed pool
Ferned grot,—
The veriest school
Of peace; and yet the fool
Contends that God is not —
Not God! in gardens!
When the eve is cool?
Nay, but I have a sign;
'Tis very sure
God walks in mine.

—*T. E. Brown.*

S. S. No. 3, Gainsborough Tp., Lincoln Co.