

FOR FARMERS STOCK BREEDERS AND GARDENERS

Many Colorful Annuals

Garden beginners should get acquainted with the long list of annual flowers. Of the many types of flowering and foliage plants which can be used to improve a landscape, the annuals are easiest to grow most economical to buy, and bring the quickest results.

Where only a few flowers are wanted, a careful selection should be made so as to leave a long season of bloom. Here are a few rules to follow. Apply them to the subjects which you like best.

First of all, the culture is demanded—plants the seed of which can be sown in the open ground and thinned instead of being laboriously transplanted. Second is a display of color in the garden. Third is freedom of bloom. Fourth is a goodly supply of cutting—those with enough stems for the purpose without cutting off whole branches of the plant. Fifth, annuals to cover the entire season and appear at various times in order not to become monotonous.

Favorite lists of annuals will vary with the number of garden lovers who make them, and it is impossible to say, "here are the best five or ten." Individual taste and fancy will enter into the final choice, but in everybody's list some of the following will be included: nasturtiums, scarabaeas and zinnias.

With these eight annuals a garden brilliant from mid-June until killing frosts could be maintained with a minimum of care the chief requirement being to keep the weeds. They could be arranged in beds or planted in rows like vegetables, or planted in an annual border with as great certainty of satisfactory results as could be attained with any flowering plants.

A few low-growing plants for edgings might be added: Alyssum lobelia, miniature marigolds, which will fill this need; there are, of course many others. And a few fragrant plants will add much to your enjoyment. Only the nasturtium in the above list has any pronounced perfume, but this can be taken care of with a few mignonette plants, or the night-scented stocks.

Most of the flowers mentioned, except the edging plants will make good cutting material to cheer your living room.

NEW BRITISH KING IS ENTHUSIASTIC GARDEN

When Edward VIII, then Prince of Wales, was being admitted to the Freedom of the Worshipful Company of Gardeners—a London Guild—he assured the audience that he was not a gardener in name only.

"I do feel that I have found at last a true role," he told the guild. "I hope one day Lord Walkfield (the master) will see me carry away a number of prizes at the horticultural show."

Since ascending the throne King Edward has continued his gardening hobby, and may be found during the mornings at his country residence, Fort Belvedere, just outside London, working among his flowers and vegetables.

Weaning Young Pigs

During the next two months, a very large number of little pigs will reach the age when they will be taken away from their dams and placed on rations, which, in most cases, will not meet the requirements for economical development. This period is the most critical in the life of the pig. It is the time when a great number are given such a setback that they never develop properly. It is the time when the difference is made between marketing at six months or at eight months. It is the time when the difference is made between profit, or no profit.

We can take it for granted that the milk of the sow is a complete balanced ration, which contains all the necessary elements with which the pig can build bone, muscle, blood, and remain in a thrifty physical condition. This being the case, we should leave the pigs on the sow as long as our breeding practice will permit. This milk is high in fat content. This fat is laxative, and prevents constipation in the little pigs. After the pigs are weaned many farmers begin by feeding the skim milk. Now skim milk is decidedly lacking in fat. It contains the same elements as cheese, and consequently we find that the pigs become constipated, and develop an unthrifty appearance.

Pigs can be ruined if fed largely on skim milk. Crippling or indigestion may result. If whole milk is a balanced ration, it is evident that a balanced ration in the skim milk is too high in protein, when fed alone. As evidence that many farmers do not understand the chemical composition of skim milk, we find it is used as a supplement. This oil-cake is also very high in protein, and low in fat or oils. The word oil-cake is a misnomer, as practically all the oil has been removed. If skim milk is unbalanced, due to too high a protein content, we are making the ration still more unbalanced by adding oil-cake to this skim milk. In cases where there is plenty of skim milk, I would go far as to say that oil-cake is not only unnecessary, but actually harmful. Oil-cake may be used sparingly in the ration when skim milk is scarce, but there are other protein feeds available, which can be used to better advantage than oil-cake, and at less expense.

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Borax Should Be Used With Discretion

Much is being said these days in some parts of Canada about the beneficial effects of borax in controlling brownheart in turnips, a supposedly physiological disease, also in the production of mangels, sugar beets and tree fruits.

The point is according to officials of the Seed Branch, Dominion Department of Agriculture, that under certain soil conditions, the above mentioned crops, further experiments are not yet thoroughly understood borax gives positive results when small amounts are applied to the above mentioned crops. Further experimental work will likely add to present-day knowledge of the subject.

In the meantime, farmers should be extremely careful in using this material for it stunts growth or destroys most crops if applied in larger amount than the crop will stand. An application of four to four pounds per acre of borax may be sufficient to destroy a potato crop while turnips may stand even more than twenty pounds per acre under some conditions.

The Fertilizers Act prohibits the sale of mixed fertilizers containing more than four pounds of borax to the ton so as to protect the farmer against crop damage. In the light of present knowledge of the use of borax in crop production, it should be used with extreme discretion.

Propitious Outlook Apple Marketing

The apple marketing prospect for present holdings of Canadian apples would seem to be optimistic, R. E. Robinson, Chief of the Market Services, Fruit Branch, Dominion Department of Agriculture, told the annual meeting of the Pomological and Fruit Growing Society of the Province of Quebec, which was held recently in Montreal. This prospect is derived from the following figures from the records of the Dominion Bureau of Statistics. The total crop produced in Canada for the season of 1935 was 4,069,000 barrels. Export shipments up to January, 1936, amounted to 1,200,730 barrels and 1,950,057 boxes, as compared with 922,815 barrels and 1,503,681 boxes for the corresponding period of the preceding season. This represents an increase in exports over last season of approximately 30 per cent.

An examination of the figures relating to common and cold storage holdings indicates that there is nearly half a million barrels less in storage at the present time than there was in 1935, or 1,011,355 as against 1,470,901 barrels. Considering apples in storage together with those exported to January 24, 1936, it is estimated that there is a 1935 crop has already been disposed of. As a result, the domestic apple marketing outlook should be decidedly healthy, more especially as 32 per cent less apples are in storage at the present time than at the corresponding time in 1935. Coupled with these circumstances, the purchasing power of the average citizen is improved, prices are relatively higher, and export marketing prospects continue to be of an encouraging nature.

HENS EAT EGGS

It is very annoying to find a bunch of eggs in the nest all muddled up due to one or more eggs having been broken. This may have been due to weak shells or eggs may have been deliberately broken by a hen. Weak shells may be removed by strengthening the egg shell with a cod liver oil as sometimes the birds apparently do not make the proper use of the shell that is being fed. Direct sunlight or its substitute C.L.O. seems to enable the bird to make full use of the lime, and this passing into the shell strengthens it so that there is less danger of one breaking by accident. Having plenty of nesting space will also help prevent breakage. It is when two or three hens crowd in the one nest that an egg is likely to be broken.

The egg-eating habit is a vice that usually starts with one bird, but it may soon spread to others. They will work away at an egg until they break the shell and then devour the contents. Others birds get a taste try the same thing and soon broken eggs are found in a number of nests. This is bad at any time and results in considerable loss, but it is particularly bad in the spring when eggs are being saved for hatching. No one wants to put dirty eggs in the incubator and hatching eggs certainly should not be washed, in fact it is advised against washing the market eggs as they lose that protective coating which nature seals the egg.

Gathering the eggs frequently, providing nesting space that is more or less in the dark, trying to catch the culprits and removing them from the pen or else cutting the sharp tip off their beak, are methods of stopping the loss from egg eating. Some use newspapers in the pen as a means of distracting the bird's attention. They work at the paper, tearing it to pieces. The kind or variety of paper doesn't seem to make any difference.

When it comes to saving eggs for hatching they should be gathered at least twice a day to prevent chilling in the cold weather and to prevent heating by a number of hens being on the nest during the day. Whether marketing the eggs to hatchery, to a private trader or in a wholesale way, cleanliness of the pen and uniformity of color coupled with proper grading helps hold the trade.

General Quality of 1935 Seed Crops

Supplies for the seeding of field crops for 1936 must necessarily be derived largely from 1935 seed crops. The year 1935 was unique as regards conditions affecting the growth and maturity of all kinds of seed crops. Excess frost together with adverse climatic conditions over a wide area of the Dominion did heavy damage in Western Canada, and one of the worst epidemics of black stem rust seriously affected grain crops of a large section of Saskatchewan and Manitoba.

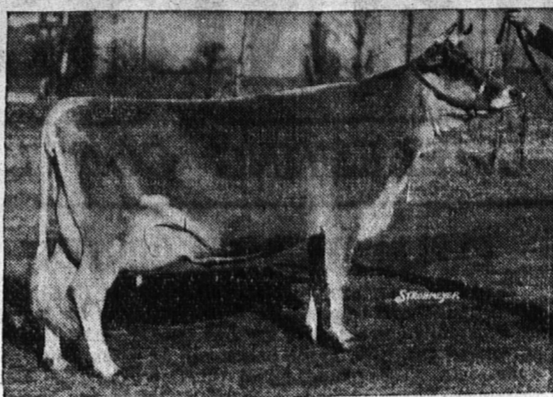
To make specific reference to cereal crops, it may be said that in no part of Canada was the oat crop of normal quality. In Western Canada damage to this crop from frost was more severe and covered wider areas than for some years. This applied particularly to the northern parts of all three Prairie Provinces or those districts from which seed supply for the southern parts of these provinces, as well as other parts of Canada, is usually drawn.

The Provinces of Manitoba and Saskatchewan are the principal production sources of barley in Western Canada. Here this crop suffered from rust and excessive rain at harvest time. The seed is therefore light in weight and of poor colour. Barley and oat crops throughout Eastern Canada gave their growing crops a very early start, and consequently the seed is of a very high quality. Unfavorable weather conditions at filling time, however, so affected these crops throughout large parts of the district that the quality of the seed from the standpoint of kernel weight or body of sample is the lowest in some years.

Referring to clover crops, timothy seed was of first importance in 1935 as regards yield, but the quality was somewhat impaired through loss of colour and excessive hulling, the result of rain at harvest time and over-ripening. Red clover seed production resulted in two distinct qualities of seed, the bulk of the production, being of lower than average quality because of interrupted maturity by frost. Alsike seed was of very small volume and much below average quality, especially with respect to protein content. Alfalfa seed production in 1935 was of negligible proportions. Sweet clover more nearly maintained average quality than that of any other forage crop. However, it must not be inferred that an acute seed situation exists. Much good seed is available, but the usual supply of sound, plump vital seed of cereals especially was not produced in 1935.

Encouraging results have again been obtained from the forage crop breeding work at the Dominion Experimental Farm at Brandon, Manitoba. There were 229 varieties and strains on test in the forage crop nursery.

Considerable progress has been made in the breeding project for the development of Corriedale sheep at the Dominion Experimental Station at Lethbridge, Alberta. The work has been under way for a number of years.



EDGELEY DREAMING COUNTESS—69089—

BRED AND OWNED BY ALFRED BAGG, EDGELEY, ONTARIO
Grand Champion Jersey cow at the Canadian National Exhibition and the Royal Winter Fair, 1935, and many other prizes.
Her dam was Grand Champion at the Canadian National Exhibition in 1934. Sold for \$1,800.00 to Mrs. W. Clarke, Kansas City, Missouri, U.S.A.

NEWSY NOTES

ANGLO-SAXON POETRY (I)

This is a time of revivals—Irish, Gaelic, Welsh, why not Anglo-Saxon? (Don't take that too seriously!) There is, contrary to my former belief, a considerable body of literature in that language; and I have greatly enjoyed Prof. R. K. Gordon's translations of English poetry covering the period between the years 650 and 1000 A.D. Putting the Anglo-Saxon Chronicle, and the short poems written into it, on one side, there seems to be little doubt that the song of the minstrel Widsith is the oldest piece of literature in our language, but it has received later additions such as references to the Medes and Hebrews. The battle of Maldon took place in 993, between the invading Danes and the English; and the poem describing the fight, though but a fragment, is in a vigorous, heroic strain and is the last great poem before the Norman Conquest.

English poetry before the Conquest may be roughly divided into two classes, heroic and Christian, says Prof. Gordon. The heroic poems are old stories and legends of Kings and warriors of continental Germanic tribes, and there is nothing distinctively English about them but the language. The Christian poems are adaptations of the Bible narratives, for general and sometimes lifeless moralizing. It may seem strange to us that Northumbria led the van of those who contributed to this literature, for the modern Northumbrian's tastes do not lie in that direction; he is more concerned with the lives of saints, and for the edification of his contemporaries, making the remarkable paraphrases of Scripture which modern poets have not disdained to make use of. The English language at that period was a very rough tool to work with, as the following example from the well-known story of "Beowulf" shows:

"Him se yldesta ondsawarde,
Werodes wisa word-hord onleac."
That is:—"Him the eldest answered, of the troop the leader (his) word-hoard unlocked." Some of the southern dialects were even more unorthodox and interesting as their study undoubtedly is one would scarcely like to see a revival of them in a national sense!

The ravages of the Danes from the eighth century onward, wiped out the Northumbrian poetry has survived only in West Saxon dialect, and not in its native dross. "Beowulf," the story of a Swedish hero, bears traces of its Northumbrian origin, and is preserved in a manuscript believed to have been written about 1000 A.D. It is now in the British Museum. It is a lively account of Beowulf's fight with the giant Grendel in the Hall at Heort in Denmark, his slaying Grendel's mother under the waters of the lake near-by, and his encounter with a fire-breathing dragon in which he slays the dragon but dies of wounds, is a kind of Jack the Giant Killer tale. Among the other contents of the Beowulf M.S. is the story of Judith, "a work of remarkable power and beauty."

In a manuscript in the Bodleian Library, Oxford, are the poems entitled Genesis, Exodus, Daniel, Christ and Satan, and the "Genesis" till I saw the two illustrations in the "Horticulture" magazine. I must make an effort to see it at first hand!

Turning to the list of plants mentioned in the article, they are, I feel sure, high-class Von Tubergen productions. That firm, located in Holland, put out a catalogue equally satisfying to the botanist and the gardener. I, too, am looking forward to Spring when I hope to see some of their wares in bloom. My Iris is one of the bulbous type; as I am not certain how the rhizomatous-rooted Iris would stand the winter in this northern site, Iris Anglica "Princess Juliana" has large deep blue flowers, with a white eye; and Iris Hispanica "Golden Glory," is a rich self-golden-yellow, with the standards

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ANIMAL HUSBANDRY

It has been wisely said that the feeding of pure-bred beef cattle usually entails the business of fitting them for the shows, as there is no other way in which a breeder can so successfully advertise his herd as by exhibiting a few of his best animals and capturing some of the awards offered at exhibitions.

We have in Canada a great many breeders of beef cattle, and herdsmen feeding them, who are past masters in the art of fitting animals for exhibition. The true artist in this business, however, is the man who can bring them out in show fit and yet not overdo them, lest their usefulness as breeders be permanently impaired.

This difficult task has been accomplished by a good many skillful breeders. In recent years, champions have been bred from champions, and calves have gone on winning from the junior class right up to the aged class, coming out each year as fresh as their first appearance.

The advisability of high fitting has been discussed many times. Beef cattle, however, are judged as to their fleshing qualities, and the exhibitor who can fit his animals as to present a beef carcass in its most attractive form has always the best chance to win.

The present showyard classifications pretty well exclude non-breeding females from exhibiting, and a good many of the objectionable features of overfitted animals have been eliminated.

Efforts are also being made to prevent the faking of cattle for exhibition purposes, and the exhibition authorities, breed associations, and department of agriculture, should combine to remove the least suspicion, in this respect, from cattle that are awarded prizes at shows.

Let us now direct our attention to a recognized continent-wide breeder and feeder of Shorthorns. This man has always been a firm believer in twice-a-day feeding, maintaining that feeding often does not give a cattle beast a chance to lie and chew its cud properly, which is all-important to ruminants in securing the best results from feed. He claims that he has often met exhibitors who fed more frequently unable to show, his appetite being dulled by too frequent feeding. Where a twice-a-day plan is adhered to, he claims that no difficulty of that kind is encountered. The animal is always keen for its feed, there is less danger of its getting stalled, and the necessary time for rumination and digestion between feeds is the means of utilizing the ration to its full value, thus keeping the animal in a more healthful condition.

This herd goes out to pasture in excellent condition. They are very even and attractive looking, but are also in good flesh. Hay is often fed for roughage, but when fodder is more expensive, straw forms a considerable part of the roughage.

The hay fed is mixed and contains a good deal of blue grass and alfalfa. The cows get no grain, but are fed about one bushel of pulped mangels each, daily. No grain is fed to them except what they get in the corn ensilage. A little extra care is given them at time of calving, but they milk well and keep in good flesh on this ration.

In feeding a beef-breed cow, a farmer has to figure the annual cost of her maintenance as part of the cost of her calf; and while a top calf will pay this several times over, it is necessary to keep the average cost of calves down to a minimum, and ensilage, green feed, helps in this plan. Mangels make succulent, healthful feed, invaluable to a herd of breeding cows, nursing their calves.

Alfalfa and clovers are used as pasture land but permanent pastures are much preferred.

The owner is in the business of breeding pure-bred beef cattle, and the sale of bull calves, and also a number of heifers, forms a large part of his profit. With him, the calf is the thing! Rapid development and early maturity is what he aims at. Young bulls that find a market at 12 months old or younger are the most profitable.

A young herd has been fed on this farm for some years, and the awards won at exhibitions from year to year have greatly aided sales. The fitting of calves for show purposes has, therefore, become an important business.

Milk plays a large part in preparing the show calves, and cows in this herd have their milking qualities well developed.

A bull calf that shows promise of developing into a good one is given an additional supply when he is able to take it. A good bull calf gets 40 to 50 lbs. of milk a day when getting near show time. This may seem like valuable food, but it is fed to a valuable calf. It is safe, natural food, that will give the youngster fine show yard bloom, and after being thus fed he can be turned over to a new owner in that healthful condition which will enable him to go right on. Numbers of calves on this farm are raised on their mother's milk alone, but when a calf is good enough to show in the strongest kind of company, he is considered worth a liberal supply of the best feed for calves that can be found. This is milk.

Mangels are fed the calves just as soon as they will eat roots. The troughs are filled up at each feed, with more than the calves will eat, and the residue removed when the calves finish eating. Ground flax

Look Over Seed Lists Now

SO YOU CAN ORDER EARLY AND GET BEST SELECTION

Spring gardening really begins when the first catalog arrives. True, the weather is usually too rough for any outdoor operations. But the hoe and spade will keep from rusting a few weeks longer (if you oil them up last fall) so the first preparation for summer's array of color can be made without stirring from the fireside.

Selecting seeds from a catalog which lists many hundreds of varieties is no small task. It should be treated very seriously, and each desirable subject should be studied and located in the garden even before it is ordered. Every gardener will want some petunias, zinnias, marigolds, larkspurs, poppies and a few others that are universally grown and loved, but just what color and variety of each he needs will depend on where and under what conditions he will grow them.

Fortunately, the modern seed catalog is very clear and understandable on this subject, and gives detailed instructions for planting as well as the characteristics, habits and special cultural needs of each subject. In the amateur studies of horticulture, the catalog will learn much which the casual planter never knows, and will have real success with his flowers and vegetables.

Books on gardening which can be obtained from the seedsmen or public library are another source of information. They do not always list the names of the newest flowers, but they are indispensable for discussions on design, border planting and succession crops of vegetables. The garden magazines are equally helpful.

Lacking the sources of information, the catalog will do you very well alone, and for the amount of condensed material, it can't be beat. Many universities use them in class instruction for this reason. If you have not received one this year, order immediately. You will need it to plan your garden, and of course to select the seeds that will give the better selections you get.

Poultry Seed Sales Show Big Increase

The importance of the poultry industry to the mixed feed trade and the high level at which poultry seed sales have been maintained in all parts of Canada during the depression is strikingly indicated in the recently issued "Report on the Mixed Feed Trade in Canada, 1934," compiled with the co-operation of the Feed Division, Seed Branch, Dominion Department of Agriculture, and recently published by the Dominion Bureau of Statistics.

While sales of all mixed feeds in 1934 were greater by 22,008 tons than in 1930, sales of poultry mixed feeds alone were greater by 30,762 tons. Poultry feeds in 1934 accounted for 70.3 per cent of all mixed feed sales and in 1930 for 64.4 per cent. The proportion of poultry feeds to the total in 1934 was highest in British Columbia, 88.4 per cent and lowest in the three prairie provinces, 44.4 per cent.

The volume of poultry feed sales has expanded as a result of the increase in mixed feeds in every geographical area of the country except the Prairie Provinces, for in all parts of Canada sales of scratch grain mixtures were lower in 1934 than in 1930.

is fed at the rate of three handfuls to a group of sixteen calves, twice a day. The flax meal is sprinkled over the pulped mangels in the trough. This group of calves, some of the quite young, consume about six bushels of mangels per day.

Oat chop is also fed to the calves. No whole oats is fed. The group get six gallons of oat chop per day, in two feeds. This is increased as the calves grow older.

The oat chop mixed hay, alfalfa and blue grass, all they will clean up, twice a day.

Cooked barley and corn are favourite feeds for finishing calves for the show yard. Boiled barley has been fed for some time at this farm, but recently corn has been added and used with the barley, about three bushels of corn to four bushels of barley. About one quart of flax is boiled with each bushel of this grain, making very good feed for finishing.

Boiled oats and bran also form part of this feeding ration and when the supply of roots is exhausted in the spring, dried beet pulp is fed.

In 1931, for example, there were eighteen head of show cattle in this herd. Their ration was mixed as follows:

- 96 lbs. boiled barley (dry weight.)
- 56 lbs. boiled corn (dry weight.)
- 6 lbs. flax seed, boiled with the grain.
- 100 lbs. rolled oats.
- 40 lbs. ground oats.
- 30 lbs. wheat bran.

The cattle are fed about 18 lbs. each of grain daily.

The boiling of this grain is done once a day, two days' ration, or two feeds, being cooked at once. Care is taken not to burn the feed in cooking it.

Of course the amount fed to each individual animal would vary some according to its capacity for feed. Calves on a milk diet would consume less and full-grown animals more than the average of 18 lbs. This, with plenty of brack brushing in the diet for show cattle on this farm.

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Here's How Head Lettuce Is Grown

Growing good head lettuce is a feat which baffles most amateurs and makes the successful ones inclined to brag. The usual cause of failure is a late start, and the seed is sowing in a box under a sash or in flats need be only 1 inch high, with about 4 inches of soil. They may be 18x24 inches larger, but the small size is more easily handled.

A light loam, sifted and containing plenty of sand, should be used to fill the box. The bottom of the box must have holes bored in it for drainage, or be made of slats. Cover the holes with pieces of broken pottery or large pebbles. Head lettuce plants should be set in a box with a sash and a brick. Make the top smooth and mark off straight drills and grooves in the soil about 3 inches apart. Sow the lettuce seed in the drills, not too thickly. Firm the soil over the seed, water the box by setting it down into a tub of water. Head lettuce plants do not cover the top of the soil but are thoroughly into the entire body of soil. Let the surplus water drain away.

The box should be placed in a dark, fairly warm place and the soil kept moist by sprinkling with a fine spray until the plants are up. Then it should be given all the light possible. The seedling plants of lettuce should have a cool place (60 to 70 degrees) and plenty of light to prevent them from growing too fast. The directions for starting seeds generally to seedlings need a fairly cool place, with all the light possible. If the place is too warm, their growth will be forced and weak.

Head lettuce plants do not need transplanting indoors until they are coming along so fast that they are crowding each other in the box before it is possible to set them in the garden. To transplant them indoors lift the tiny seedlings with the blade of a knife, taking soil with the roots, and plant them in another flat, allowing each plant 2 inches in the row, with rows about 3 inches apart.

The seedlings should be set out in the garden as soon as the soil can be prepared. The soil must be the richest you have and ought to have a liberal dose of phosphate. Lettuce is a gross feeder, and your task is to make it grow fast, so that it will come to a tight head before the hot weather arrives. The bed must be rich and there must be a way of watering it when the ground outside is so dry that the plants are kept under protection, because the first lot often perishes in a late frost.



Novelties add new interest to an old garden. Get a few of the new annuals, and some of the new vegetable varieties.

Annuals may also be started in a cold frame to good advantage when this will require later sowing when the temperature has reached a point where the soil will freeze the earth in the frame. The most effective use of annuals is in borders of various combinations of color such as blue and pink, mauve and rose, orange and yellow, scarlet and orange and other color schemes.

Lay in a supply of complete plant food for spring planting operations. The land will need an application, and most flowers and vegetables will thrive with it. The usual first application is 4 pounds for 100 square feet of ground; follow directions on box or bag.

The easiest and cheapest way to start seeds early is in seed boxes or flats. Set them in a sunny window a month or more before time to plant outdoors. It is advisable to transplant them to a second box in order to harden them.

The massive dahlias which you see at exhibitions are not beyond the amateur's grasp. This flower has been developed so intensively that it grows from seed or tubers. They make excellent background plants, and growing exhibition flowers is a fascinating hobby.

Apartment dwellers find a window box helps to satisfy the longing for a garden. Dozens of flowers can be grown in small space. Nasturtiums, Petunias and other dwarf or rambling subjects are good.

Build cold frames early. It is a good idea to make them of sturdy material like cypress or white pine—they last longer and are cheaper in the long run.

The third official estimate of Canadian wheat production in 1935 is 277,339,000 bushels—3,368,000 more than the average of 18 years. This, with plenty of brack brushing in the diet for show cattle on this farm.

AGRICULTURIST