

Home Course In Modern Agriculture

VIII.—Corn Growing

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Corn is the principal crop grown over so large a section of the United States it is important that we learn as much as possible regarding the best methods of producing it. The average yield of corn in the United States is only 23.7 bushels per acre. The best farmers are able to obtain an average yield of sixty to seventy bushels per acre year after year. There is no secret in their methods. They are simple enough to be applied to every farm in the corn belt. There is no reason why the average yield per acre should not be fifty bushels or more instead of less than half that, as at present.

In preparing to raise a maximum crop of corn there are two main factors to be considered—the soil and the seed. Of these two the first is prob-

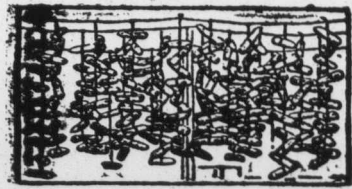


FIG. XV.—ONE OF THE BEST WAYS TO HANG UP SEED CORN.

ably the more important. We have already learned how the plant obtains food and water from the soil. The first step in preparing the soil for a corn-crop, then, is to see that there is a plentiful supply of plant food on hand. This we can do by using barnyard manure liberally and by following a consistent system of rotation that will equalize the demands made on the soil and keep up the supply of nitrogen and humus.

The next point is to see that the soil is in such condition that the roots will have little difficulty in branching out to secure the needed plant food and water. Thorough plowing, disk-ing and harrowing will make the soil fine and mellow, so that the roots will have little trouble in obtaining all the plant food they can use, provided it is there at all.

The water supply can be regulated to a considerable extent by tile drainage and by keeping the surface loose to check evaporation. The temperature of the soil is also an important factor in hastening germination and early growth. Drainage, cultivation and the maintenance of a plentiful supply of humus will aid greatly in securing a warm seed bed by planting time.

With a warm, well prepared soil containing sufficient quantities of plant food and water the next question that comes up is regarding the kind of seed to put into that soil. Almost any kind of seed will grow and produce a fair crop under favorable conditions. What we are after, however, is not a fair crop, but an extra good one.

The seed of different strains of corn varies greatly in its ability to produce yields. In the spring of 1905 the Iowa experiment station gathered seed from nearly a hundred different sources and planted it on the station grounds. Under conditions that were as nearly alike as it was possible to make them the yields from the different strains varied from thirty-one to eighty bushels per acre. This variation shows that a large share of the improvement in corn production must come through the breeding of high yielding strains.

It is not safe to ship in seed corn from a distance. Corn is very sensitive to changes in climate and soil. To obtain the best results the work of breeding must be done for each locality and to some extent for each farm.

A method of improving seed corn that will surely result in some improvement and one that has simplicity to recommend it is that of selecting a number of the best ears each year and planting them in a field by themselves or in one corner of the main field. By selecting the best ears from this breeding plot each year to plant next year's breeding plot and using the rest of the good ears to plant in the main field some improvement can be effected. The weak point in this plan, however, is that the yielding power of an ear cannot be told from its appearance. Neither is it possible to prevent inbreeding by such a method.

To avoid these difficulties the "individual ear" plot has been devised. This should preferably be at least forty rods from the nearest cornfield. Where this is impossible a strip along the south side of a field of the same variety may be used. As the prevailing July and August winds are from the south, very little pollen from the main field will blow over on the breeding plot.

Each row in the individual ear plot is to be planted with the kernels from a single ear. As a fair sized ear will plant a row forty rods long, this is a convenient length for the plot. Select from 50 to 100 of the best ears you can find among your corn and plant them in as many rows across the plot. The work can be done with a planter if care is taken to clean the seed boxes out thoroughly each time across. The cultivation given to the plot should be the same

as that which the main field receives. The time for special treatment comes when the tassels begin to appear. We have already learned that inbreeding is weakening and that cross fertilization develops strength and vitality. In order to prevent inbreeding in the individual ear plot the tassels on every alternate row should be pulled out as soon as they appear. In order that these may be removed before they shed any pollen it will be necessary to go over the field every other day for a week after the first tassels start. At the same time any tassels from weak, barren or spindling stalks in the other rows should be removed. In this way only pollen from healthy, vigorous stalks is allowed to mature. Thus the ears on the detached rows, being cross fertilized and having only strong, healthy male parents, have a much better chance of producing large yields when planted than would ears picked from the general field.

The most important point, however, is the selection of high yielding strains that is made possible by having the ears planted in individual rows. When harvesting time comes the produce of each row should be husked separately and weighed. It will be found that there is a great difference in yield. The highest yielding rows, provided the corn is of good quality, should furnish seed for next year's breeding plot. The rest of the good seed ears from the detached rows should be planted in a small field, known as the "multiplying plot." The best of the seed from this multiplying plot can be used to plant the general fields and for sale.

By continuing this breeding process from year to year a strain of corn may be built up that will far outyield the ordinary corn of the neighborhood. In addition to the increase in yield which will result on your own farm, a trade in seed corn may be built up that will add materially to the year's profits. There are many variations in the plan of breeding here outlined, but the essential point in all of them is to select the best yielding individual ears and to prevent cross pollination as much as possible.

After the seed corn has been picked it should be stored in such a manner that it will pass through the winter uninjured. The hints in regard to seed storage as given in article No. 6 should be followed.

Some time toward the close of winter the corn should be tested. For a preliminary test a hundred kernels may be taken from as many ears in different parts of the room. If the corn has exceptionally strong vitality the kernels may all germinate. In case some of the kernels fail to grow or a very considerable number show weak sprouts each ear should be tested separately in order that the weak ones may be discarded. The method of making this test has been described so many times in agricultural papers and bulletins that it will be unnecessary to give it in detail here. It simply consists in placing several kernels from each ear in a corresponding square in the germinating box. In this way the vitality of each ear may be readily determined.

Shortly before planting time the ears should be shelled and run through a seed corn grader to take out the butt and tip kernels and divide the rest into even grades. The next step is to block up the planter and run through a sample of each grade, changing plates until a set is found that will drop the required number of kernels practically every time. If this is done and well tested seed used a good stand will almost certainly result.

Avoid too deep planting. All that is necessary is to have the seed well covered with moist soil. If this can be done without putting it down more

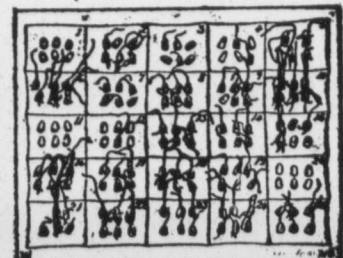


FIG. XVI.—A GERMINATION BOX SHOWING THE RESULTS OF AN INDIVIDUAL EAR TEST.

than an inch or two, so much the better. Since the plant cannot begin to digest and use the plant food of the soil and air until it has unfolded its leaves it is plain that the less soil it has to push through before it can spread out its leaves and get to work the sooner it will commence to grow. Deep planted seeds often so nearly exhaust the plant food in the endosperm before they reach the surface that they are never able to develop into strong, healthy plants.

After planting the aim should be to keep the soil in the same fine tilth it was in at planting time in order to provide large feeding ground for the roots and prevent the escape of capillary moisture.

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Parisian Sage, the quick acting hair restorer, is now for sale in Newcastle at the drug store of T. J. Durick and is sold with a rigid guarantee at 50 cents a bottle.

Parisian Sage has an immense sale, and here are the reasons:
It is safe and harmless.
It cures dandruff in two weeks, by killing the dandruff germ.
It stops falling hair.
It promptly stops itching of the scalp.

It makes the hair soft and luxuriant. It gives life and beauty to the hair. It is not sticky or greasy.
It is the daintiest perfumed hair tonic made.

It is the best, the most pleasant and invigorating hair dressing made.
Fight shy of the druggist who offers you a substitute, he is unworthy of your confidence.

Minard's Liniment Cures Garget in Cows.

WEDDING BELLS.

MACLEAN-SEWELL.

Friends here were interested to learn of the marriage at Bathurst of Francis F. MacLean, of Bartibogue, to Miss Sadie Sewell, daughter of Mr. and Mrs. Bernard Sewell, of Bathurst, on Tuesday afternoon, July 6th, at 2 o'clock. Rev. R. L. Carson, rector of the Episcopal church, performed the ceremony. The bride looked charming in a white embroidered suit with hat to match. A dainty wedding luncheon was served at the Robinson hotel, after which the happy couple left for their new home at Bartibogue.

Some people look upon tea as a mere drink. It all depends upon the tea. "Salada" Tea is a delicious and refreshing beverage. Sold only in sealed lead packets.

DALHOUSIE.

DALHOUSIE, July 8.—The citizens of Dalhousie have had to complain very often about the difficulty of securing a special train to take them to Campbellton to attend any important function.

Why that should be so is very difficult to understand. One would think that with the Superintendent at Campbellton there should be no time lost in arranging for an engine and a couple of cars to go to Campbellton without one person having to guarantee a certain amount.

It was at a very late hour that it became known at the Dalhousie station on the eve of Dominion Day that there would be a special train leaving next morning for Campbellton. Had the weather been fine and notice given ahead nearly 200 persons would have gone to Campbellton to celebrate the day. As it was 98 tickets were sold at our station.

It is to be hoped that Superintendent Price will be able to make a business like arrangement with the I. C. R. commission by which on the receipt of a message from any reliable citizen speaking for a number of people to provide a special train so that our citizens may attend from time to time any function going on in Campbellton.

The meeting of the Auxiliary of the Women's Missionary Society which was held on Tuesday was well attended, and great interest taken in the deliberations.

The temperance hall has been improved lately by receiving a nice coat of paint.

Work is progressing well at the three new residences that are being erected here. The pretty homes built on Adelaide street cor Doctor Disbrow and Principal Jones on William street, for the Messrs. Hilyard will add very much to the appearance of our little town.

Messrs. A. & R. Loggie lost a valuable horse today. While being driven between the station and the wharf, the horse was struck by the engine of the branch train and was so badly injured that he had to be killed.

Everything points to a very successful tourist season for Dalhousie this year. A great many guests have already arrived at Inch Arran House and families are coming by every express train.

Several families from Fredericton will be guests at this famous resort this year.

Among the young men ordained by Archbishop McCarthy, Halifax, on Tuesday was Joseph Turgeon, son of O. Turgeon, M. P. for Gloucester, who received sub-deaconship. Mr. Turgeon has joined the Episcopist order.

For the next four weeks there will be no Presbyterian service here, Rev. and Mrs. MacArthur going away on a vacation.

THE JULY HOME JOURNAL

In the July Home Journal "The Dominion of To-Day" tells of the wonderful growth of Canada from 1867 to 1909. The new serial story "The Mystery of Barry Ingram," by Annie S. Swan, starts in this number. The opening chapters give promise of its being one of the best stories ever offered to Canadian readers.

"The Awakening" is an excellent short story of a dream that came true. Many girls have ambitions to become writers. Their troubles and perplexities are told in brief in "The Girl Who Wants to Write."

Women are coming to the front as explorers and a short sketch of the travels of Miss Agnes Deans Cameron in Northern Canada is very entertaining. "Wanted, a Beauty Combine," is a splendid article advocating the retaining of the natural beauty of our towns and villages. It is excellently illustrated with photographs.

The whole issue is profusely illustrated. The cover is an excellent reproduction in colors of "The Violet Lady," by Canada's foremost artist, W. Goode, who also contributed the "Summer Girl" which is printed in colors inside.

This magazine has improved so much recently that many leading Canadian women are reading the Home Journal in preference to foreign publications.

Minard's Liniment Cures Diphtheria.

The news that the mid-summer horse races, advertised by the M. A. E. A. of Chatham for July 14 and 15, have been called off will be heard with regret by the horsemen in this vicinity. The Chatham committee occupy the unique position of having the track in such excellent shape that the American horsemen are chary of entering, not wishing to mark their horses with a fast record so early in the season. The proposition was made that the track be ploughed up, but taking all matters in consideration the directors thought it best to call the meet off altogether.

The Fredericton Herald says:—It seems to be the general impression that the sporting public did not get a square deal in at least one of the horse races pulled off here last week. If one can place any credence in the reports heard on every side, it was manipulated for the benefit of a few individuals. The president of the Park Association, who usually takes high ground on moral questions, should not allow reports of this kind to get abroad if they are not founded upon facts.

CRUCIFIXIONS IN PERSIA

Punishment by crucifixion still survives in Persia, but the victim is nailed to a wall instead of to a cross. At the gates of towns may be seen pillars of brick with domed tops about the height of a man, in which victims are walled up. They may be heard calling for water, though generally the pillars are supposed to have their hollows filled up with earth, so that the victims cannot move and die quickly. Another way of punishment is to bury a man up to his neck in wet slime, which when it dries, contracts and gradually crushes him. This is the most terrible of all deaths.

LONGBOAT BEHAVING WELL

DESERONTO, July 7.—Sol Mintz, of Hamilton, Longboat's manager, arrived here last evening, and was met at the station by his Indian charge, who took him to Mr. Maracle's home on the Mohawk reserve. Longboat has been visiting here since July 1st, and has been keeping away from the hotels. "I have my own contract now, and think I will have to clean up all these good runners again," said Longboat today.

Mrs. Gould says it is bad form to wear a gown more than once. And it was for this the late Jay manipulated railways.

No use, kids, thinking of hiking west, to emulate the deeds of Buffalo Bill. The golden age has passed. It's the office or the workshop for you.

Notice of Sale

To John Brooks of Newcastle in the County of Northumberland, Province New Brunswick, Trader, and Janet Brooks of the same place his wife, and to all others whom it may concern.

NOTICE is hereby given that under and by virtue of a Power of Sale contained in a certain Indenture of Mortgage bearing date the tenth day of May, one thousand nine hundred and four, and made between the said John Brooks and the said Janet Brooks of the one part and William Wilkinson of the parish of Chatham in the said County of Northumberland, then County Court Judge of the other part, registered the tenth day of May A.D. 1904 in volume 81 of the said County Records on pages 338, 339, 340, and 341 and is numbered 214 in said volume, there will for the purpose of satisfying moneys due on, and secured by the said Mortgage, default having been made in payment thereof, be sold at Public Auction on Mitchell street in front of the premises in the Town of Newcastle in said county, on Monday the second day of August next at the hour of 12 o'clock noon. All and singular the lands and premises situate in the Town of Newcastle in the county of Northumberland bounded and described as follows, namely, Commencing on the southerly side of Mitchell street in the said Town and extending sixty-four feet on the said street bounded easterly by lands of John McCullum, southerly by the factory ground so called and on the westerly side by lands of David Dinan and northerly by said street being the same lands and premises that were conveyed by the said John Brooks to Janet Stewart (now the said Janet Brooks) by Deed dated twentieth day of April one thousand nine hundred and six as the same are described in said Mortgage and being the lands and premises on which the said John and Janet Brooks have resided for some years past.

Together with all and singular the houses, buildings and improvements thereon and the rights members, privileges and appurtenances thereon or to the said lands and premises belonging or in any wise appertaining.

Dated 26th day of June A.D. 1909.

WM. WILKINSON
No. 38-4 wks. MORTGAGEE

INTERCOLONIAL RAILWAY
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(CANADA'S SUMMER TRAIN)
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Through Matapedia Valley in Daylight.

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LEAVING MONTREAL 9.00 A. M. ARRIVING TORONTO 4.30 P. M. and for Detroit, Chicago and the West

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CARTING and TRUCKING promptly attended to.

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PHYSICIAN and SURGEON

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FOR SALE.

Motor Boat 26ft long, 4ft. 4in. beam, less than half price also

ROYAL GASOLINE MARINE ENGINES, IDEAL PORTABLE GASOLINE ENGINES for wood-cutting and farm use Apply

MILLER'S FOUNDRY and MACHINE WORKS Chatham, N. B.

Pure Percheron Stallion "HUGO"

will travel during Season of 1909 in this County. Will stand at Newcastle, Chatham, Ferryville, Napan, Bay-du-Vin, Loggieville, Derby, Indiantown, Blackville, Whitneyville and Redbank. For dates see posters.

TERMS FOR SEASON \$10.00. James Vickers, Groom.

THE PURE PERCHERON STOCK CO. OF Nfld.

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\$5,000 Worth of Dry Goods, Boots and Shoes,

to be sold At Cost Price

Men's Shirts, from 25c up. Men's Suits, worth \$8.00 for \$5.00. Women's Skirts, worth \$2.50 for 1.50. Boys' Suits, worth \$5.00 for 3.50. Small Boys' Suits, worth \$3.50 for \$1.75.

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