Store-house in which reserve plant-food is found

Factory where plant-food is made into plant-tissue

Transportation system by which plant-food is carried

Mine from which all plant-food except carbon is obtained
Serious feed shortage during the dry years coupled with low prices for the principal cash crops has turned the attention of all farm operators to the production of corn and other feed crops.

In spite of general opinion to the contrary corn is a drouth resisting crop. Many farmers have come to appreciate that corn is a relatively dependable crop and has lower water requirements than small grain, pasture, or hay.

While Montana is not in the corn belt, the corn acreage is increasing and promises to equal or eclipse the acreage of 1924 (420,000 acres) within the next few years.

Corn acreage has continually pushed northward as early maturing adapted varieties have been developed. This crop has been largely responsible for the prosperity of the central states and is conceded to be the key to a stable and permanent type of farming. As farming grows older and progress is made in diversification of crops, corn will assume an increasingly important place in Montana agriculture. Types of machinery designed to efficiently handle large acreages of corn have recently been developed which will be a factor in future increase of corn acreage.

The importance of the corn crop and the main reasons for an increase in acreage can be summarized by the following points:

1. Corn makes diversification of crops and livestock production more easily possible and profitable.
2. Corn is relatively drouth resistant (makes good use of available moisture supplies).
3. In eastern Montana, corn is a good substitute for fallow in furnishing a good seed bed for the production of small grains.
4. Corn furnishes a cheap and sure supply of roughage for livestock.

5. Corn produced in a good year can be stored in silos or by other methods for use in feeding livestock during periods of feed shortage. Feed reserves prevent serious loss to the livestock farmer during drought periods.

Figure 1.—These plants are of the same variety. The first is southern grown, the second home grown Montana.
SELECT PROPER VARIETIES

Early maturing varieties of corn are the only ones that are adapted to Montana conditions. A fairly wide selection can be made from a number of standard strains of short-season dents as well as the semi-dent and flint varieties. This range of selection will permit the grower to choose a corn that is best adapted to his conditions and suited to the use that is ordinarily made of corn raised in the community. The practice of bringing in seed corn from outside the state (probably from the old home community much to the south) and attempting to adapt it to Montana conditions, is a mistake too often made by corn growers in Montana. This practice is a waste of time that generally results in failure. There are plenty of good adapted varieties and strains available locally. They should be used.

MONTANA CORN REGIONS

Figure 2 is a Montana corn map prepared by the agronomy department of Montana State College showing roughly the five general corn regions of the state.

Generally speaking Region I ranks first in adaptability to corn production and the other four regions in the order named. With such a great variation in soil, climate, and altitude, it is to be expected that any classification will be subject to local exceptions. One locality within any given area may have more favorable conditions such as better exposure, warmer soil, especially favorable frost conditions, etc., which will make it possible to raise larger and later maturing varieties than the region as a whole.

Region I, a narrow strip along the Yellowstone River in southeastern Montana is adapted to the production of a number of selected strains of fairly late dent corn. Included in the list are Minnesota No. 13, Brown County, and Golden Glow all yellow dents, and Silver King, Pioneer and Rustlers white dent. This region has a longer growing season and a greater number of heat units than any other section of the state. In addition to these, the earlier maturing semi-dent and flint varieties, recommended for the other districts, should occupy an important place, particularly for late planting and for hogging-off, as they are the safest varieties and provide a form of feed insurance.
Figure 2.—Montana corn map.
Region II, which includes lower altitudes of southeastern Montana and small areas in Fergus, Cascade and Chouteau counties is adapted to the production of selected strains of such dents as Minnesota No. 13, Brown County, Pioneer and Rustlers and the semi-dents such as Falconers, Northwestern and Minnesota No. 23. The flint varieties, however, are recommended throughout this region especially in the communities that are less favored as to soil and frost free period.

Region III covers a large portion of the plains area of Montana exclusive of areas included in regions I and II. In the more favored portions of this region, those of lower altitudes and those bordering region II, very early maturing Montana types of some of the dent varieties such as Minnesota No. 13, Brown County, Pioneer and Rustlers, may be used profitably, particularly for silage and fodder but main dependence should be placed on local strains of Northwestern dent, Falconer and Minnesota No. 23. The early flint varieties that have been recommended for the other regions should hold a position of greater importance than in the first two regions.

Region IV includes areas of higher altitude with a shorter growing season and the standard recommendation for this part of the State would be a Montana strain of Northwestern dent as the main variety. The other semi-dents, Falconer and Minnesota No. 23, will mature equally as well but in most sections will not produce as high a yield. The flints such as Dakota White, Mercer, and Gehu are preferred over other varieties because of their high yields and early maturity.

Region V, the unshaded area on the corn map includes the mountainous districts of the state. Local variations are so great and occur within such short distances that it is not practical to attempt to map them. In some of the mountain valleys in western Montana conditions are favorable for adapted varieties.

MATURITY.

In the following paragraphs different varieties of corn are classified according to the purposes for which they are grown and time required for maturity.

For hogging-off, and a sure ear corn crop. Gehu and Dakota White flint are two well known varieties that definitely fall in this class. Both are classified as early flints. They are short of stalk,
sucker profusely, produce a maximum number of ears with flinty rounder kernels, are very efficient in the use of soil moisture and are capable of developing to maturity within 60 to 90 days.

Gehu is lemon-yellow in color which may be an advantage from the feeding standpoint. It is the result of a cross between White flint and Mercer.

Dakota White flint is a heavy yielder of both fodder and corn, originating from a selection of white kerneled flint secured by Oscar H. Will from the Indians. It usually outyields all other varieties for grain production.

For a fairly dependable yield of ear corn and more fodder. Included in this class are varieties that grow high enough to be cut with machinery, produce a high yield of fodder with ears large enough, and high enough, to be husked by hand, such as the late flints (Mercer), the mid-early semi-dents (Northwestern, Falconer and Minnesota No. 23), selected varieties or strains of dents (Alta

Figure 3.—The kind of corn the Indians found to be adapted for the production of a sure crop of ear corn. Note short stalk, suckering habit and low set ear.
and Pioneer White—classified in the dent class as mid-early), and other similar acclimated white and yellow dent varieties which require from 90 to 100 days to mature.

Mercer is an orange yellow flint, brought west at an early date under the name of Dutton. The name Mercer appears to be a western name. It is a tall variety bearing the ears well up on the stalk. It is leafy, suckers abundantly and is an excellent yielder of both corn and fodder.

Northwestern is of unknown origin. The kernels are red with white or yellow in the indentations. The cob is usually white. It is distinctly earlier than the early strains of Minnesota No. 13. The typical ear is a true semi-dent. As compared with dent, the variety is very leafy and suckers rather abundantly. For a number of years following its introduction in 1896 by Oscar H. Will it had wider distribution in the northwest than any other variety. The best strains of this variety for Montana are Armenia, Mandan, and Crookston.

Falconer is a yellow semi-dent (frequently shows many flinty ears) with growth habits and maturity requirements about the same as Northwestern. It is a native of Burleigh County, North Dakota, and probably the result of a cross between the early native Indian flint and a yellow dent brought in by pioneer settlers. It has a wide range of adaptation and because of its yellow color has preference over Northwestern by many growers.

Minnesota 23 is a semi-dent having white-capped kernels with light yellow sides and white cobs. It traces back to seed secured by the Minnesota Experiment Station from a farmer in Polk County, Minnesota, in 1893, and selected and bred for high yield by O. P. Ball of that Station.

Alta is an early selection of Minnesota 13 at the Highmore Experiment Station in South Dakota. It has filled a demand for an early maturing yellow dent corn and has been widely grown in the central and northern part of the State. Alta is a deep-kerneled variety, ranking high in shelling percentage and has a small white cob. It yields slightly less than Northwestern and is a pure yellow.

Pioneer is an early maturing white dent introduced by Oscar H. Will, Bismark, N. D., and is regarded as a selection from Rustler. It resembles that variety very closely except that it is smaller, earlier,
and has a small cob. It yields less than Northwestern or Falconer and is distinctly less valuable for fodder.

**Varieties for fodder and silage.** Varieties classified as mid-late such as Rustlers, early strains of Minnesota 13 and Silver King (Wisconsin No. 7) have been successfully matured in Rosebud county and a few other favorable localities scattered over the state. From 110 to 130 days are required for maturity. These varieties can be used for fodder and silage in other parts of the state where it is known that they will reach the glazing stage before the average killing frost date.

Do not grow unknown varieties listed as "fodder corn" as they will generally turn out to be a late, rank-growing, watery type that will rarely more than attain the milk stage. An erroneous impression of the yielding capacity of late maturing types of corn is gained when green weights are compared because of the very high moisture content of the late as compared with early varieties.

![Dry Matter in Corn Diagram](image)

**Figure 4.**—This diagram shows why late maturing corns do not yield as much dry feed as types which mature or reach the glazing stage before frost.

Rustlers is a mid-early to mid-late white dent variety introduced under this name by the Northup, Braslan, Goodwin Company of Minneapolis in 1888, claimed by them to have been obtained from a Dakota farmer in 1884. Early acclimated strains should be used. It has limited adaptation in eastern Montana.
Minnesota 13 originated from foundation seed secured by the Minnesota Experiment Station from De Cow & Company of St. Paul. It apparently was Pride-of-the-North stock. The variety was selected and improved and offered to farmers of Minnesota for the first time in 1897. Early strains among which are Thorpe, Hanly, and Golden Moccasin will mature in favorable seasons in region I. Late strains should be avoided.

Silver King (Wisconsin No. 7) is a white dent corn with medium sized ears. The kernels are medium deep and, in the original type, inclined to roughness. The stalks are of good height and very leafy, making it an excellent variety for fodder and silage purposes.

Whatever variety of corn is grown, it is always advisable to use home grown acclimated seed. Seed corn does not "run out" if properly selected.

1. Secure seed of well selected adapted varieties.
2. Make sure that the seed is strong and vigorous.
3. Grade it so as to secure an even stand.

In order to make an intelligent selection of corn varieties, definite information should be secured on the number of days required for maturity and the average frost free period for the community. The maturity requirements for the main varieties is given in the foregoing paragraphs. The range in dates of the last killing frost in the spring and the first in the fall for the four Experiment Stations in the state is given below:

- Bozeman—May 11 to June 27 and August 24 to September 27.
- Havre—April 26 to May 30, and August 31 to October 6.
- Moccasin—May 4 to June 20, and August 24 to October 17.
- Huntley—May 5 to June 3, and August 31 to October 11.

No matter how rich the soil, excellent the seedbed, or thorough the cultivation, if the seed is poor or mediocre, the stand and yield also will be poor. For every dead or weak ear used for seed, there will be about 900 missing, weak or barren stalks in the field.

To insure a perfect stand it is necessary that every seed planted should grow. If instructions outlined regarding seed selection and
storing, are followed seed should germinate well. In any event, seed should be tested for germination. First make a bulk test by taking five or six kernels from different parts of each of 100 ears. If the test shows over 95 per cent germination, an individual ear test is not necessary, otherwise an individual ear test should be made that all poor ears may be discarded.

For the bulk test, the kernels may be laid on wet paper or a blotter placed in the bottom of a pie tin. Cover this with an inverted plate and place in a warm place (room temperature). Keep the paper moist and remove the kernels as they sprout. Continue this for one week. Calculate your percentage by adding two ciphers to the right of number of kernels showing strong germination and divide by the total number of kernels in the test.

For the individual test, several good methods might be used.

**THE RAG DOLL method of testing seed corn described here** has replaced practically all other methods used under practical conditions.

Get strips of glazed butcher’s paper, 12 inches by 60 inches, and a strip of fairly heavy muslin 12 inches by 54 inches. Place the strip of paper on a clean floor or table and lay over it the strip of muslin, being sure to boil the cloth in water each time it is used. Take eight kernels from each ear, laying the kernels from a given ear in a row across the moist muslin strip. Number ear row to correspond to numbers used on the ears. Lay the kernels germ down on the moist cloth, and with the tips pointing toward what will be the lower end of the rag doll.

Thoroughly wet the cloth, and then roll up the doll, being careful to keep the kernels in their respective rows. Fasten the ends of the roll with rubber bands or string. Put a tag in the upper end of the roll to show the number of ears used and the date of the test. Now stand the roll “tip ends of kernels down” in a large pail, or water tight container containing about a quart of water. Cover the container with a moist gunny sack and then invert a tub or larger container over it so as to prevent drying out.

Set this outfit back of the stove or some place where the temperature will stay at about 80° F. Keep the dolls moist but not covered with water. Unroll the dolls at the end of seven days and read the...
test. Throw out all ears whose kernels fail to sprout; and all ears whose kernels show weak, slender sprouts, or short, slender feeder roots. Throw out ears whose kernels show a moldy appearance in the germinator. White oil cloth may be used instead of butcher’s paper. Boil the muslin and the oil cloth thoroughly before they are used for another test. Use a fresh strip of paper for each test. The paper helps prevent the spread of molds from infected kernels.

If the supply of seed corn is short, it may be necessary to use some ears showing a little weak germination; in such a case, the number of kernels dropped in each hill must be increased.

**GOOD SOIL AND SEEDBED**

Having secured proper seed, the next thing in order is to find a suitable home for it. Corn likes a warm soil and if there is a choice, select the sandier types of land in preference to the cooler and heavier soils. A southern slope is better than a northern exposure. Under irrigation provide good drainage. For club work it is well to obtain a field near the house. Try to avoid locations where stock will be apt to get into the corn. Locate fields with different varieties far enough apart so that the varieties will not mix. Have them 40 to 80 rods apart.

For convenience in handling the field should be longer than it is wide. For a one-acre plot, ten to 16 rods is very good. Spring plowed land is probably more practical. Before plowing an even but light application of barnyard manure may be applied with profit. Plow the land to an ordinary depth or a little deeper. Corn will stand it. Work the seed bed early to start and to kill weed growth and to create a mellow granular seedbed covered with a loose and open clod mulch. A good seedbed is half the crop. Prepare the seedbed before planting the corn. The land should be harrowed as soon as possible after plowing. This will save moisture and will also insure a better surface than would be obtained if the top soil were allowed to dry and harden before cultivation.

Before planting it is usually advisable to further pack and improve the seedbed by cultivating the land with a disk set fairly straight. Use a spike tooth or spring tooth harrow to obtain a good firm seed bed covered with a granular cloddy mulch.
WHEN AND HOW TO PLANT

Corn planting time must be changed to suit the season but May 5 to May 20 is generally about right. Hardy varieties will stand some frost in the spring. Find out the average date of the last frost in the spring. Too early planting in cold soil is not recommended since corn seedlings make a slow growth in cold soil and are more likely to be infected by disease.

Corn may be planted in several ways: namely, by drilling, check-rowing, or listing. Check-rowing is preferred to make possible two-way cultivation. Two or three kernels in hills 42 inches apart give a sufficient stand. At this rate, one bushel of corn will plant seven to nine acres. Five quarts will plant one acre. If corn is planted in drills, the kernels should be spaced 12 to 18 inches apart. Planting may be done with a regular planter, a grain drill, or a hand planter.

Corn should be planted one to two inches deep, varying with conditions. In a wet, cool season, shallow planting is advisable. If the soil is light or the spring quite warm and dry, deeper planting is desirable.

Figure 5.—Get after the weeds in the hill with a hoe before they become as large as this.
KILL THE WEEDS

Weed destruction is the principal reason for corn cultivation. The loss of water and plant food material through their consumption by annual weeds is enormous, often amounting to as much or more than the amounts consumed by the crop itself.

More weeds can be killed through early tillage than by any other way. The adjustable spike tooth harrow, the weeder, and the rotary hoe are implements which will cover a lot of ground in a short time. Weeds, killed before they have made much growth, have not had time to become the soil-robbers they will become if allowed to grow. Blind cultivation is often advisable if the field is very weedy. Intertillage calls for skill and care on the part of the operator. Avoid deep tillage because the attendant root pruning lessens the vigor of the plant. Protect the stand by proper use of shields and through the exercise of care in uncovering hills unavoidably covered.

The first cultivations with shovel cultivators may be made deeper than the later cultivations. Small shovels are usually preferable. Surface cultivators equipped with blades or sweeps deserve a wider use than they have received especially on light soils or on loamy soils. Surface cultivators are not so well adapted to heavy soils which are likely to pack so hard after rains that the surface blades or sweeps will not operate successfully.

Surface cultivators are particularly useful on fields infested with quack grass, bindweed, or Canada thistle. The practice of ridging corn before it is "laid by" should be avoided because of the large losses through root pruning, then, too, such fields require too much seed bed preparation for the succeeding year's grain crop.

The number of cultivations will depend upon the weediness of the field and the character of the season. The operator will do well to remember that the labor costs in cultivating corn should not be charged to that crop alone, because the labor thus expended is preparing the next season's seedbed for some grain crop.
A LESSON IN INTERTILLAGE
( FOR AVERAGE SOILS )

"EXCAVATION"  CULTIVATION

DEEP CULTIVATION WITH NARROW SHOVELS

SHALLOW CULTIVATION WITH "DUCK FEET"

1. Does not effectively kill weeds
2. Cuts the roots of the corn plant
3. Creates a rough uneven surface
4. Induces unnecessary loss of moisture

1. Eliminates the weeds
2. Does not disturb the corn roots
3. Maintains an even "clod" mulch
4. Conserves moisture efficiently

BY THE WRONG WAY...

BY THE RIGHT WAY...
HOW TO HARVEST

On the average Montana farm, corn will be harvested either with hogs or sheep or with knives, sled harvesters or binders. The early flints are adapted to hogging or sheeping off.

If man is to do the harvesting, the choice lies between (1) husking from the standing stalks: (2) cutting and shocking in the field and later husking, shredding, stacking or feeding in the bundle; (3) cutting before maturity and putting it in a pit, trench or upright silo. Montana types of corn are not suited to “Cornbelt” methods of harvesting. Labor is also scarce and expensive. Montana corns are apt to be small eared, short stalked, fine and leafy. The crop will therefore generally be harvested with livestock or with adapted machines. An ordinary grain binder can be used but it is rather unsatisfactory. Homemade sled-cutters are also employed. They require considerable labor and are somewhat dangerous. Corn binders of the low-corn type are being used more and more as corn growing increases in acreage and importance. This type of corn binder is equipped with extra drag-chains or some similar device, in order that the low corn plants may be harvested properly.

If the corn is not put into a silo immediately after harvesting, it is generally allowed to cure in the shock. Later it is hauled in and either threshed through a grain separator or stacked ready for winter feeding. Montana fine-stalked corns are adapted to threshing. The corn should be dry and it might be well to thresh oats or run straw through the separator at the same time.

In stacking corn fodder, the stacks should be tall and narrow, not over 10 feet wide. A layer of straw—about four inches thick between each two layers of corn bundles will help to absorb excess moisture and thus prevent spoilage losses.

SELECT SEED

Select sufficient seed corn in September for two years because: It is the most certain means of improving corn and adapting it to the needs of the farm and community, and, because yields of corn may be increased at slight expense by proper and careful field selection of seed corn.

It is important that seed be selected from the standing stalks in the field before killing frost. The germ—the living part of the
kernel—is very delicate. Freezing of the germ while it is moist, will destroy or seriously lower its vitality. An experiment station test showed that seed corn which had been field-selected before frost germinated 93 per cent while that picked after frost failed to show over 60 per cent. Selection in the field also makes it possible to eliminate immature and undesirable types of plants. Continued selection from year to year will work wonders in improving the type of corn.

Seed corn should be selected a week or ten days before the average date of the first killing frost in the fall. (Fig. 8). Tie a sack across the shoulders and walk through the field taking two rows at a time, selecting the best matured ears from vigorous well rooted plants. Do not select for anything too extreme. Observe the average type in the field and do not make selections too far from this average. Select the right kind of ear from strong vigorous plants. Avoid coarse or extra long shanks.

More detailed information on seed corn selection, culling and storage will be found in the 4-H Seed Corn Manual.

Figure 8.—Select seed corn from the standing stalks before frost arrives.

CARE OF SEED CORN

Seed corn should be dried and stored properly. Freshly picked seed corn should not be left in piles to heat and mold. It should be cared for at once and stored under shelter and in the shade, where there is free circulation of air. Every precaution should be taken to
insure the seed corn from freezing or overheating before it has become thoroughly dry. Good places to dry and store corn are attics, kitchens, spare rooms, machine sheds, farm shops, or a regular kiln drier. Any dry, sheltered and well ventilated place will do. But avoid such places as the roof, under the eaves, the granary, cellar, porch, windmill, barn or similar damp, unsheltered or poorly ventilated location.

Handy devices make curing easier. Any method that permits free circulation of the air around each ear is satisfactory. Several methods have been devised and are in general use. The double string method of hanging seed is the most popular for small quantities.

Figure 9.—Drying seed corn around the kitchen stove by the "Double String" method.
The corn tree can be made quickly and at small expense.

Figure 10.—The "Corn Tree." Note the stove furnishing artificial heat for drying.
Lath and woven wire racks are very convenient and permanent.

![Image of woven wire rack](image.jpg)

Figure 11.—Woven wire rack. Chicken wire will do but ornamental wire is more rigid and serviceable.

**SHOW AND KNOW GOOD CORN**

Every corn grower should do his bit in creating interest in corn growing and improvement by exhibiting at shows and fairs. The grower will be well repaid in experience even though the prize is not won. It is much more difficult to select and prepare a winning ten-ear exhibit than it is to pick good seed corn. The exhibit must be quite uniform and attractive in addition to meeting the requirements for good seed corn. Go through the field or bin and select a large number of ears which appear to be of the proper type. Then by a closer inspection of these ears, the selection may be narrowed down to the ten “typiest” and most uniform ears for entry at the show.

It is not to be expected that a mere inspection of an exhibit of corn can be considered an infallible method of determining its value.
in the field and corn exhibiting and judging is far from being an exact science. Much depends on individual ability and judgment.

Figure 12.—Standard types of corn varieties. Top row: White Dent; 2nd row: Yellow Dent; 3rd row: N. W. Dent; bottom row: Early Flint.
However, there must be some fairly definite guide to go by. This is sometimes referred to as a score card but it is in reality a standard of perfection which the exhibitor tries to keep in mind in selecting his corn sample for entry. Four main questions should be asked in the selection or judging of a ten ear corn exhibit.

1. Will it grow?
2. Will it mature?
3. Is it improved?
4. Is it fancy looking?

To answer these questions as accurately as possible by mere inspection, is the difficult job of the corn show judge.

1. Will it Grow? Has the ear strength and vitality? Will the kernels germinate strongly and produce healthy, husky plants? The only sure method of finding out is to plant it or make a germination test, but a good idea may be gathered by observation. First examine the germ, for the germ is a small corn plant waiting for proper conditions to germinate and develop further. Outwardly the germ should look plump, bright, cream colored and waxlike and not blistered, shriveled, brittle nor mouldy.

The kernels should be bright and clear in color. Chalkiness and a dull dead color indicate lack of life. The only discoloration not indicating poor condition, is the normal black spot under the tip cap. Also look out for kernels injured by mice or insects.

2. Will it Mature? Will the ears mature eight seasons out of ten in the community where grown? Every effort should be made to overcome the all to common tendency of attempting to grow a type of corn which is too large and too late for the conditions. The maturity of the sample itself, the size of the ear, roughness of dent, starchiness of kernel and depth of kernel must be considered.

Adapted types for Montana are apt to be rather longer in comparison to circumference than the corn belt types. The ears are also apt to taper a little more.

Roughness of dent, deep kernels and lateness generally go together. The smoother-dented and shallower-kerneled types are higher and safer in yielding power. The ears should show maturity by their plump well developed kernels set firmly on a rigid cob.
the ear be twisted, it should give an impression of firmness and solidity. Kernels should shell off clean without a trace of chaffiness.

3. *Is it improved?* Can the sample be relied upon to reproduce itself? Does the type indicate that the grower has had a definite ideal in mind toward which he has consistently selected? Is it pure as to variety? Is this corn what might be termed “well-bred?”

Uniformity in color, kernel and cob, in width, thickness, depth and shape of kernel; in indenting of kernel; in arrangement and spacing of rows, and in the size and shape of the ear as a whole, is a good indicator of the purity of breeding.

Varieties have definite characteristics and corn showing deviations from type should be scored down accordingly.

4. *Is it Fancy Looking?* Formerly “fancy points” were very important at corn shows. It has been found, however, that there is not much relation between fancy looking corn and yield and judges give them very much less weight. Some of these points are more important than others. Shape of kernel, for instance, will vary with the variety but for Montana dents, a moderately deep kernel of keystone or slightly wedge shape is preferred. Such kernels fit onto the cob nicely. Very little relationship exists between straightness of rows and yield but in a show, it is a point to be considered, all other factors being equal. Well filled butts and tips used to be stressed but from the practical standpoint, it is not worthy of consideration. In a show, it is but right that some credit be given to the fancy looking display when samples are equal in other respects. Undue coarseness in the shank scar or hollowness of cob are objectionable.

In selecting ears for exhibit, the grower may remove two adjacent kernels about one-third of the length from the butt. Other missing kernels will be considered just cause for a lower scoring.

In packing samples, it is well to number the ears in the order in which they should be displayed from left to right. Each ear should be packed in paper and wrapped securely.