

Bulletin 259

JULY, 1924

CONNECTICUT AGRICULTURAL EXPERIMENT STATION

NEW HAVEN, CONN.

Corn in Connecticut



Figure 17. Harvest time in Southern Connecticut.

The work herein reported was conducted as a joint project of the two Connecticut Experiment Stations, and therefore will appear in the Annual Reports of both Stations.

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July, 1924.

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Corn in Connecticut.¹

D. F. Jones, W. L. Slate,² and B. A. Brown.²

Connecticut stands in the unique position of having the highest average yield of corn per acre although it is well removed from the center of largest production. In the amount of corn raised Connecticut is exceeded by 35 other states. Within the state corn occupies a greater area than any other cultivated crop. The amount of land devoted to the more important crops, in thousands of acres, is approximately as follows: hay 330, corn 67, tobacco 27, potatoes 18, other vegetables 9, oats 11, rye 5, buckwheat 2.3 The value of the corn crop in Connecticut, worth about six million dollars in 1919, is usually exceeded about three times by tobacco. two times by hay and nearly equalled by vegetables and by fruits. The three other cereals of any importance, oats, rye and buckwheat, combined do not ordinarily amount to much more than one tenth of the value of corn. The relatively high average yield of corn per acre is due largely to the small size of individual fields, to the usually ample rainfall and the general practice of fertilizing corn liberally. The high humidity which commonly prevails during the pollination period favors a full setting of grain on the All these factors tend to overcome the disadvantage of a ears. short growing season and low temperatures during the earlier part of the growing season which retard the growth of corn.

CLIMATIC ZONES.

The southern edge of the state along the sound and considerable areas along the river valleys extending well into the state have much the same climatic conditions as the main corn growing region of the mid-west. This is shown by the biological zones, as mapped by the U. S. Biological Survey, which are based upon areas occupied by the same or closely related species of wild plants and animals. While these zones are somewhat arbitrarily defined they give perhaps the best guide to the natural climatic and soil conditions which govern the growth of plants. The upper Austral zone, as it is called, in the humid section includes practically all of Iowa, Missouri, Illinois, Indiana, Kentucky, Ohio, parts of the central states east of the Appalachian mountains and extending through New Jersey and Long Island to the area bordering the sound in New York and Connecticut and extending inland in the larger river valleys.

This explains why many of the large deat varieties from the west are often grown successfully for grain in Connecticut. But

²Agronomists at Storrs Station.

³Fourteenth Census Vol. VI, part 1, figures for 1919.

¹The scope of this corn survey was planned by W. L. Slate and H. K. Hayes. Much credit is due B. G. Southwick and Henry Dorsey for the location of varieties and obtaining the facts concerning their history and development.

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these varieties when grown for any length of time are considerably modified in size, ear shape and kernel type and in time of ripening either by direct seed selection or by natural selection. The typical western dent type favored in the past is not adapted to New England conditions. The kernels are too deep and compact on the ears to dry out well in our moist climate. The texture of the kernel is softer than our flint or smooth dent varieties, consequently the ears mold easily and the seed germinates poorly the following year. Since the smooth, hard-kerneled ears with shallow grains spaced widely on the ears have been found to give plants which ripen earlier and often yield as much or more than the compact, deep rough-grained types, these more flint like types have been favored.

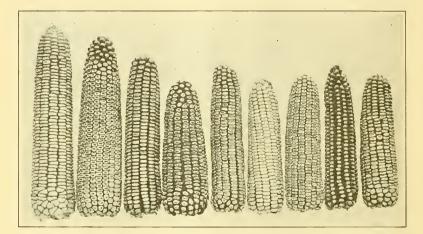


Figure 18.

Representative ears of different types of dent corn commonly grown in New England. They are from left to right; Eureka, Connecticut Dent, Century, Golden Dent, Lakeside, Sharon White Cap, Early Wonder, Holcomb's Dent and Early Huron.

TYPES OF CORN GROWN IN NEW ENGLAND.

Along with the recently introduced western varieties and the better adapted New England dent types derived from these, there are the typical eight-rowed yellow and white flint corns grown by the Indians in New England when the Mayflower landed and still widely planted. Flint corn has long been grown in this section and is well adapted to a short season and ripens when dent varieties are too wet to crib satisfactorily. The hard shallow kernels dry out quickly, consequently the seed is not easily injured by frost in the fall and germinates well the following spring. For these reasons flint corn is the most dependable kind of corn to grow in the northern part of the state, at high elevations and in places where the frost comes early in the fall.

Many variations from the typical eight rowed flint type exist. There are very long eared varieties, others with very large seeds, and still others with small seeds having ten, twelve or fourteen rows of grain on the ear. Color varies from yellow to white in the endosperm or seed proper and from colorless to brownish or dark red in the hulls or pericarp. In addition to the typical dent and flint varieties there are a number of intermediate types having characteristics of both dent and flint corn. These have every evidence of being hybrids between dent and flint varieties which have been maintained as intermediate types.

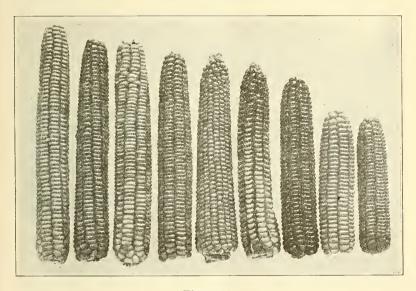


Figure 19

Types of flint corn commonly grown in New England. They are, from left to right; Sanford White, Longfellow, Mammoth White, Burwell's Yellow, Dutton, Smut Nose, King Philip, Rhode Island White Cap, and Griswold's 90 Day.

On account of its geographical position on the border line of two biological zones, with its varied topography, soils, and seasonal conditions Connecticut has probably as many distinctly different varieties of corn as any section of the country. Many of these varieties of widely different type grow equally well in any one locality. Since practically all of the corn is used on the farms where it is grown there are no market requirements to meet which in other places tend to limit the number of varieties to a few belonging to one type.

THE NEED OF A VARIETY TEST.

On account of the great diversity in varieties of corn grown in this part of the country it is often a problem to know which is the best variety for any particular place. In order to make an intelligent selection it is necessary to know the length of the growing season, the soil requirements and the general character of the different varieties. Many varieties suitable for silage are not at all suitable for husking. And many good varieties for grain are unprofitable to use for silage. Since there are so many differences in the varieties of corn now grown it may be expected that some varieties exist which are inherently more productive for a given locality than other varieties requiring the same length of growing season. Since corn, like every other plant, varies pro-



Figure 20. The variety test field at the Mt. Carmel farm.

foundly with the soil, the season, and the the treatment given, the only way to find out the high yielding varieties is to grow them side by side and compare their production under equal conditions. In this way valuable material is found with which breeding operations can be conducted for the purpose of further increasing the capacity of corn to yield.

In 1914 the two Agricultural Experiment Stations, at New Haven and at Storrs, planned a co-operative corn survey and variety test. The aim was to locate the most promising varieties in every part of the state and test these long enough to find out their ability to yield in different parts of the state and their suitability for different purposes. In carrying out this plan practically the whole state has been covered and varieties located by inquiring whenever a promising field of corn was seen. The county agents have helped greatly in giving the names and location of promising varieties. The local and state fairs have also been used to get the names of growers of corn in Connecticut. Some varieties from adjoining states have been included as well as a few from the west and south. The latter have been tested mainly for silage purposes.

On account of limitation of ground upon which the tests have been conducted it has not been possible to include every variety grown in the state. It is also quite possible that not all of the best varieties have been included. But since the test has covered nine years, new varieties being added each year, most of the better varieties have been included.

As much information as possible has been obtained concerning each variety—its origin, where grown, how selected and the purpose for which it has been raised. This together with a briet description is given for each variety or strain. In most cases very little is known about the history of a variety of corn.

ORIGIN OF VARIETIES OF CORN.

There are many indications that corn has been grown on the American continent for many centuries previous to the coming of the white man. Corn was the principal food crop of the Indians and the main types of corn grown to-day developed in the hands of the original inhabitants. Flint corn was grown in the northeastern states and in Canada. "Gourd seed" corn, the forerunner of the modern dent type was found in Virginia and the soft floury type was employed in the west. Sweet and pop corn were used to a limited extent by some Indian tribes. How these widely different types developed and what was the wild ancestral parent of cultivated corn will probably always remain in obscurity.

Many flint varieties grown to-day differ in no essential way from specimens that have been found in prehistoric Indian remains. Probably the modern dent type with its cylindrical ear and deep compact grains, completely covered tips and well filled butts as exemplified in the prize winning specimens at the western corn shows is a recent development. It is a product both of extensive selection towards a certain standard combined with the very best conditions for growth made possible by improved methods of tillage.

The Indians were skilled in the culture of corn as shown in the reports of the early explorers. There is no way of knowing whether present day varieties are inherently more productive than those of early times. In the early chronicles, yields were never stated in terms of units of land and no distinction was made between measures of ears or of shelled grain. A competitive trial of twentieth century varieties with fifteenth century varieties would be of interest but unfortunately such a test will never be conducted. The best that can be done now is to compare the flint varieties

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which have presumably changed least with dent varieties which apparently have changed most.

Very little is known as to the history and origin of the varieties grown at the present time. The common practice of changing seed and the ever present cross-pollination and natural selection which changes varieties in a few years have made it difficult to trace the history of varieties many years back. The origin of some of the most widely grown varieties in the west is typical of the way in which new varieties are developed. In 1846, Robert Reid moved from Ohio to Tazewell County, Illinois, bringing with him

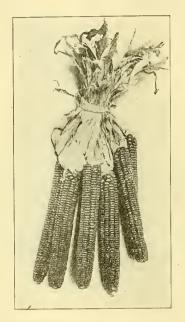


Figure 21. Flint corn has changed but little since it was grown by the Indians.

seed of a local variety known as Gordon Hopkins' corn. The first year this was planted in Illinois it did not thoroughly mature, consequently the seed did not germinate well the following year. Missing hills were replanted with an early variety known as Little Yellow corn. The corn has not been purposely mixed since then and by selection the type of Reid's Yellow dent, the most widely planted variety in this country, has been developed.

The improvement of the famous variety of corn known as Learning was begun about 1856 in southern Ohio with the use of several local varieties commonly grown in that region. It is stated that different kinds of corn were used including some with purple or black seeds. Learning is one of the first dent varieties of modern type to be developed and is a truly remarkable instance of plant improvement through hybridization followed by systematic selection. To-day many different strains of Learning are grown. There is as much difference between Learning grown for a number of years in New England and the western Learning as between other varieties of different origin. On account of the continual cross-pollination going on with corn and the resultant germinal heterogeneity the word variety as applied to corn cannot have the same significance as applied to other crops such as wheat, beans or tobacco, which are largely self-fertilized and generally remain true to type. The vegetatively propagated plants such as potatoes,

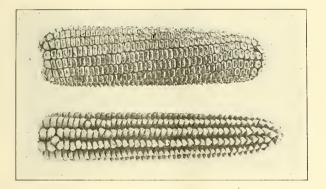


Figure 22. Extreme types of dent corn.

berries and tree fruits also come true to type as long as they are not propagated by seed and varieties of these can be described with considerable accuracy. A variety of corn on the other hand is a collection of plants that are often exceedingly diverse. In every field of corn ears can be found which resemble many other varieties. This great variability makes it possible to select for almost any desired type, and if the selection is systematically carried out there will be a gradual change in that direction.

Smooth and Rough Grained Dent Varieties.

Many western dent varieties are being continually brought to Connecticut and grown for silage and sometimes for husking. As a grain corn they usually do not ripen early enough to be entirely satisfactory except in favorable seasons. If they continue to be grown they are naturally selected for earlier maturity. The ears

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that mature properly for seed have shallower kernels, the rows of grain are spaced farther apart on the cob and the grains are smoother and harder. In other words the extreme dent type tends to become more and more flint like. Many farmers look upon this as a process of degeneration and after growing the corn for several years say that it has "run out" and get fresh seed from the west. The western seed will usually give a heavier growth of stalk because the plants mature later and in those places where such types can be brought to the hard dough stage they may be better for silage purposes than earlier ripening sorts that have become better adapted. Our tests show that the adapted varieties are superior as a general rule for grain than any varieties introduced from outside the state so far tested. While the deep kerneled, compacteared, rough seeded dent type favored in the central corn growing states carries a large proportion of shelled corn to the ear such types do not necessarily produce the heaviest yields per acre. Even in many places in the west, tests have shown the smooth, hard seeded shallow grained dent types yield somewhat better than the types favored in the corn shows. Kiesselbach* at the Nebraska Station found that as an average of two varieties smooth seed ears produced about six per cent. more than rough seed ears. In all except the most favored corn growing sections and particularly in the north, the natural tendency for corn to vary away from the extreme dent type seems to be in the direction of greater efficiency. This is expressed not only in a better quality of corn but in greater vield of dry grain.

Types of Flint and Dent Corn.

Several fairly distinct types of flint corn are grown in Connecticut; the eight rowed, medium sized, yellow Canada flint; the reddish King Philip; the Rhode Island White Cap which is similar in type but differs in color of the grain; the ten to fourteen rowed small seeded Yellow Dutton; the long eared, eight rowed yellow Longfellow, and the similar type of Sanford White which differs in color; the large seeded, heavy cobbed Mammoth White and Mammoth Yellow flints and the still larger and coarser Gold Nugget.

Dent varieties are even more diverse and types intergrade so that it is difficult to make any clear distinction. Dent corn differs from flint in having a larger number of rows of grain on the ears and in having more soft starch in the seed. This soft starch is placed at the top of the kernels and on drying shrinks more than the hard starch at the sides and base of the kernel so that the characteristic indentation is formed in the mature seeds. In some yellow varieties this soft starch remains uncolored giving the ears a characteristic appearance generally spoken of as White Cap

^{*}References to publications cited are given at the end of this bulletin.

corn. White Cap as applied to dent varieties should not be confused with the same term in Rhode Island White Cap Flint as in this variety the term "Cap" merely refers to the fact that the ears are usually well covered at the tips.

The dent varieties most commonly grown in Connecticut are derived from Leaming or similar types. They are characterized by medium to large tapering ears, with moderately smooth, hard kernels. The ears are not as compact as the western Leaming and carry a moderate proportion of grain to the cob. Similar varieties to these have been derived from Reid's Yellow Dent, Funk's 90 Day, Sutton's Yellow Dent, and other varieties. They vary greatly in size of ear, in the spacing between the rows and in the smoothness and hardness of the kernels. Another commonly grown type of dent is the White Cap corn. A number of varieties of this type have been secured from various parts of the state. The

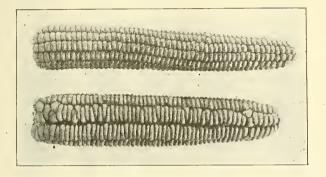


Figure 23. Extreme types of flint corn.

ears are usually smaller than the Learning types, but the ears carry a high proportion of grain to the cob. Many White Cap varieties ripen well and are good yielders.

Another type of dent corn is represented by such varieties as Century Dent, Early Michigan, Early Huron, Dowd Dent and other varieties. The ears are medium in size and usually tapering. The kernels are broad, smooth, hard and bright and have very little soft starch so that the indentation is not pronounced. The kernels are also shallow and rounding and there are wide spaces between the rows. These varieties ripen satisfactorily in practically every season and give good yields of high quality corn. They are well adapted to southern New England conditions. They combine many of the desirable features of flint corn with dent, habit of growth and yielding capacity.

A host of other varieties including white dents, golden dents and many other diverse kinds of dent corn are grown but cannot be classified in any group. There are also varieties intermediate between dent and flint such as Luce's Favorite and Hickory King. The former has every indication of being a recent hybrid between dent and flint corn and is quite variable.

Source of Seed.

As far as possible seed has been obtained each year from the original grower. The practice has been to obtain from ten to twenty ears at harvest time either from the stalks in the field or from the crib shortly after husking. No extensive selection of

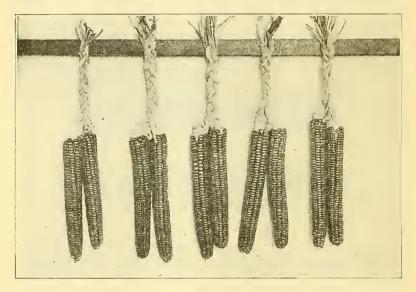


Figure 24. One farmer's method of hanging seed ears.

seed ears was made, the endeavor being to obtain good ears representative of the variety, such as the grower would sell for seed if he were putting out any quantity. The seed ears in most cases were not show ears but were generally as good as the grower would use for his own planting. Experience has shown that there is very little correlation between the appearance of the seed ears and the crop grown from them. Since ten or more ears were obtained from different parts of the field, seldom more than one ear from a shock, it is thought that the seed represented the variety fairly. Most of the seed from out of the state was sent by the grower or dealer and was already shelled. Nothing is known as to how this seed was selected. Enough seed was obtained in each case so that it was fairly representative of the variety.

Whenever one year old seed was not available two year old seed has been used but in no case has seed older than this been used. It is hardly necessary to say that no seed was saved from the trial plots since cross-pollination alters the nature of the crop grown from that seed so that it would no longer represent the variety. The seed ears were dried in a heated room and stored above freezing temperature. When thoroughly dried all the ears of one variety were shelled together and the seed well mixed. It was then divided, one half being used for planting at the farm of each Station.

WHERE THE TESTS WERE CONDUCTED.

The Mt. Carmel farm is situated about ten miles inland from the shore at a moderate elevation on soil that is classified as Wethersfield Sandy Loam. The air drainage is such that the corn is seldom damaged by the first frosts in the fall. The growing season is therefore extended a week or more beyond the time that corn is frosted in the adjacent valleys.

On this farm corn has been planted from the 20th to the 25th of May.and cut during the latter part of September or first half of October. The land used for the corn variety tests is typical of much of the upland soil in Connecticut and is fairly representative as to fertility. The fields have been rotated with various other crops, principally clover and timothy and potatoes. Corn has usually been grown two years in succession. About ten tons of manure to the acre have been used together with applications of commercial fertilizer of about a thousand pounds per acre of a 4-8-4 formula although the amounts and composition have varied from year to year. The aim has been to have the corn land representative of the average corn land in the state in fertility.

The station farm at Storrs is in the eastern highland 35 miles from the sound. The soil is Gloucester Fine Sandy Loam, a well drained soil of rather low natural fertility. It is typical of much of the eastern portion of the state. The air drainage is good and corn is not affected by the earliest frosts. The rotation and fertilization practice has been much the same as at Mt. Carmel: The two places in different parts of the state and in different biological zones make possible an interesting comparison of the behavior of the same varieties grown under different conditions.

METHOD OF TESTING THE VARIETIES.

The plan has been to grow each variety in both places at least three years. Since varieties perform differently in different seasons it is necessary to have more than one year's results upon which to base reliable conclusions. In some cases varieties have

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shown up so poorly the first or second year grown that it has not seemed worth while to test them further so they have been dropped. In many cases it has been impossible to secure seed because the farmer stopped growing the variety and no other source of similiar seed could be located. In general the practice has been to continue every variety that ripened satisfactorily and of which a supply of seed seemed assured, for at least three years. The more promis-

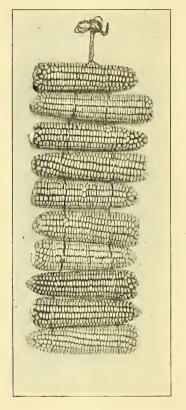


Figure 25. A convenient method of hanging seed ears.

ing varieties were grown throughout the experiment while those that yielded poorly or were unsatisfactory for other reasons were discontinued after being tested three years. However the number of years a variety has been grown is not a reliable index of its desirability as many good varieties were not included in the test until the later years.

PLANTING SYSTEM.

The usual practice has been to plant each variety in single row plots, grouping together varieties of the same type, size and length of growing season. Each variety has been planted in at least two plots in different parts of the field and as far as possible the plantings have been replicated three times. Single row plantings are subject to a competitive effect which is not present when the varieties are grown by themselves. A tall, large, late growing variety planted along side of a smaller and earlier variety will tend to have an advantage because it will receive more sunlight and will have less root competition than it would have growing in a field planted to this one variety. Consequently its yield may be higher than it would otherwise be. In the same way the yield of the smaller variety may be reduced below what it would be if it were not competing with the larger variety. Kiesselbach at the Nebraska Station compared two widely different varieties of dent corn and found that the larger and later variety in the single row trials vielded 105 per cent, more than the other variety whereas. when planted in blocks of three rows and the yield based only on the center row, it yielded only 52 per cent. more as an average of two years' trials. However, this example is an extreme case. Varieties of similar habit of growth do not show such a competitive effect. In 1915 three row plots were used at both stations. If there was a pronounced competitive effect between adjacent rows of different varieties the yields of the large and later varieties in the outside rows of the three row plots would tend to be higher. while the yield of the smaller and earlier varieties would be lower, than the center row of each plot which is presumably free from influence by the other variety. Consequently the yields of the two outer plots should be more variable than the yield of the center plot for the variety test field as a whole. The coefficients of variability calculated for each of the three rows for 69 varieties are 13.93 ± 1.75 and 15.01 ± 1.89 for the two outer rows and 13.93 ± 1.75 for the center row. In this case there was no significant difference so there was apparently no marked competitive effect. For this reason the three row plots were not used after 1915. Planting in single rows permitted more replications. The order in which the varieties were planted was changed in each replication so that the same varieties were not grown adjacent Flint and dent varieties were grown separately to each other. with a guard row where plots adjoined. For these reasons it is believed that competitive effect is not a serious factor for error in these trials although in some cases it has tended to exaggerate the differences. In any case there can be no effect unless the varieties differ in capacity to produce and it was mainly to establish this fact of a difference in varieties that the corn survey and variety trials were conducted.

CROSS POLLINATION.

Since all of the varieties were grown in the same field, cross pollination took place freely between varieties which tasseled and silked at the same time. This was shown by the large number of yellow kernels produced on white seeded varieties. Cross-pollination can have no effect upon the plant itself but it does effect the seeds immediately resulting from the cross-pollination. Of course the plants grown from these crossed seeds would be greatly altered but since no seed was saved from the test fields this can be left out of consideration. A number of investigators have shown that cross-pollination between different varieties increases the weight of the crossed seeds as compared to the self-pollinated seeds on the same ears and this tends to increase the yields in mixed plantings.

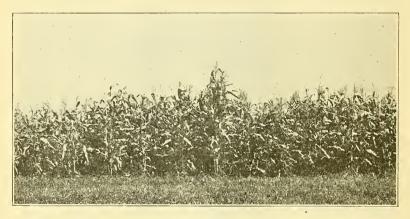


Figure 26. Variation in size of different varieties of dent corn.

Carrier compared the yield of four strains of Boone County White corn from different sources grown separately and mixed together. The four strains when grown in such a way that interpollination was prevented gave an average of 20.9 bushels per acre while an equal mixture of seed of the four strains yielded 32.4 bushels in a two year test. Similarly four strains of Learning grown separately gave 26.0 and in mixture 40.4 bushels. It is difficult to account for these large increases of 55 per cent in each case as due to hybrid vigor in the seed. Kiesselbach has made a very careful comparison of cross and self-pollinated seeds on the same ears from a number of different varieties and found an increase of only 22 hundredths of one per cent.

Results obtained at the Connecticut Station show that increase in the weight of seed due to cross-pollination is an indication that the plants are poor yielders. Cross-pollination between inbred strains that were much reduced in yield gave increases ranging as high as 35 per cent. Cross-pollination between first generation hybrids which were vigorous and yielded well gave smaller increases in weight of cross-pollinated seeds not exceeding ten per cent whereas the highest yielding type of all did not give any increase in weight when cross-pollinated with a distinctly different variety. If this is generally true, mixed plantings as in variety tests would tend to increase somewhat the yield of the poorer-yielding varieties and in this way might be misleading. It seems more probable that the increased yield from mixed plantings is due to a more complete pollination and consequently a heavier setting of seed rather than increase in weight of seeds due to hybrid vigor. This would affect all varieties alike presumably except the earliest and latest varieties.

PLANTING, HARVESTING AND COMPUTING YIELDS.

The varieties grown for grain have been planted in hills three feet apart each way and thinned to three stalks to the hill. The plots have varied from 66 to 150 feet in length in different years according to the size of the field and the number of varieties planted. The corn was cut as soon as ripe and put into shocks. When husked and weighed a sample of about 15 pounds was taken from each lot and dried in a steam heated room to a constant weight. A composite sample was then taken from all the varieties to find the amount of moisture still remaining. From this the yield in bushels of shelled corn per acre with 12 per cent moisture was calculated for each plot, using 68 pounds of ear corn equivalent to one bushel of shelled corn. Throughout the test field every fifth plot was planted with one variety as a check to indicate differences in productiveness in different parts of the The theoretical check yield was calculated for each row field. from the yields of the two check plots on each side by increasing or decreasing the difference uniformily in the intervening rows. At Mt. Carmel the difference in the yield of the variety and the theoretical check vield was then added to or subtracted from the average of all the check rows to give the final yield. This procedure may be illustrated as follows:

o cr た い い Plot Number	check variety A variety C variety D	Vela Vectual Vield 2020 Actual Vield	Theoretical Sector 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Difference be- Difference be- tween a et ual +1 + 1 + 0 +1 + 1 + 0 +1 + 1 + 0 +1 + 1 + 0 -1 + 0	Corrected yield obtained by obtained by concords adding or sub- concords difference to the group of all check plots grown
6	check	55	55	0	52.5

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In this way the yields obtained in one part of the field can be compared with the yields in other parts of the field. After correcting for place variation in this way the yields of the different plots of the same variety have been averaged. At Storrs the actual yields were compared with the theoretical check yields on a percentage basis.

In the silage test the varieties have been planted in drills, at Mt. Carmel, spacing the plants one foot apart in the rows, with the rows three feet apart. The varieties were cut at different times as they matured. At Storrs all varieties were planted in hills and cut at the same time which was usually shortly before or shortly after the first killing frost. The plants were weighed as soon as cut



Figure 27. A field of flint corn in Kent.

in the field and a sample obtained by taking every tenth stalk in the row. This was chopped and dried to absolute dryness and the per cent of moisture calculated from this. The yield in green weight per acre was obtained for each plot, corrected to the check plots and averaged. The yield of dry matter per acre was then calculated by multiplying this average by the average per cent of dry matter in the samples of that variety.

DISCUSSION AND ANALYSIS OF THE RESULTS.

The results obtained from growing the varieties at Mt. Carmel and at Storrs from 1914 to 1922 are given in the accompanying tables. The number of years tested, the color of the seed, the relative maturity, the actual yield in bushels of shelled grain per

acre and the relative yield are given for the dent and flint varieties grown for grain at Mt. Carmel. At Storrs, in addition to these data, figures were also obtained for the production of stover, the per cent of dry matter in the ear corn at harvest and the per cent of soft corn. As would be expected the yields of all varieties varied with the season. For example, the highest yield obtained at Mt. Carmel during the nine years of the test ranged from 59 bushels in 1920 to 114 bushels in 1917. Since the varieties were not all grown in the same years the only way to compare them fairly with each other is to calculate their yield relative to the yield of some one variety grown every year. This has been done, using Burwell's Yellow Flint as the standard of comparison because it ripened every year and was well adapted to the condi-tions at both places. It was used as the check for the flint varieties at Storrs and Mt. Carmel and its yield is based on an average of a large number of plots. The relative figures given in the tables are the percentage ratings based on Burwell as 100. In the case of yield, for example, the relative yield is obtained by dividing the actual yield of each variety by the yield of Burwell for that year with the result stated as percent. The relative yield for each year is then averaged to give the final relative yield given in the tables. A relative yield above 100 indicates to what extent the variety surpassed Burwell's Yellow Flint in yield of grain while a result below 100 indicates a correspondingly inferior yield.

The number of days which a variety requires to mature can not be determined with any great degree of accuracy. The method used was to go thru the field at stated intervals during the ripening period and note all varieties that were ready to be cut and put in the shock. This was determined when most of the ears were well glazed, the lower leaves drying and the husks turning yellow. Usually one observer took the notes on maturity for all the varieties so that the results are comparative. Since the time of maturity varied with the seasons it is necessary to state maturity relative to some one variety as in the case of yield. The relative times to mature for each variety for each of the years it was grown have been calculated and averaged. Based on these averages all varieties have been classified as early, medium, late or very late according to an arbitrary number of days. This scale was determined by classifying all the varieties in fairly even sized groups. The scale is the same for both dent and flint varieties grown for grain at both Storrs and Mt. Carmel. A different scale was used for the silage varieties. No great accuracy is claimed for this method of classification but it is thought the results would be more useful stated in this way rather than in actual number of days required to mature. All varieties that matured in approximately 117 days or less are classed as early, those between 118 and 126 as medium, between 127 and 135 as late and all that required more than 136 days as very late. Since

the corn was planted about the twentieth of May each year this means that the early varieties were mature about September fifteenth on the average. The medium varieties matured around the twenty-fifth, the late varieties about the first week in October. Any varieties maturing later than that or which did not mature before frost are classed as very late. These are average results. In some seasons all varieties required a longer period of time to ripen than they did in other seasons.

On account of the variability of the fields on which these tests were conducted and the great fluctuation from season to season it is extremely difficult to get reliable results upon which to base a comparison of varieties. Although the use of check plots tends to correct for soil differences and calculating the yields relative to a

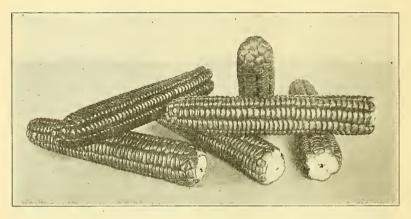


Figure 28. An early type of flint corn.

single variety tends to offset seasonal variation it is certain that varieties react differently in different situations and in different seasons. Variation in the stand of plants and plot competition all enter as factors to make the results erratic. Another serious problem in variety tests is the rate of planting. Mooers at the Tennessee Station and others have shown that there is an optimum rate of planting for each variety and that this varies with the productivity of the soil and season. In general mall growing varieties give their best yields when planted thick while larger varieties must be planted more thinly to give their best results. In a test of a large number of varieties it has been impossible to plant the varieties at different rates. The rate used, three plants to a hill spaced three feet apart each way, had been shown to give the best results for many of the varieties grown in Connecticut and so was used. But it seems apparent that many of the

larger varieties were handicapped at this rate of planting. For all of these reasons small differences in yield do not necessarily indicate any real differences in yielding ability, particularly in varieties that have been tested less than three years.

PRODUCTIVENESS OF FLINT VARIETIES AT MT. CARMEL AND STORRS.

Many varieties which give the highest yields at Mt. Carmel are also good producers at Storrs in spite of the fact that the differences in soil and season tend to make varieties behave differently in the two places. For this reason the tests show real differences in yielding capacity. In all, 62 varieties of flint corn were grown at Mt. Carmel. Of these 38 were grown three years or more. At Storrs 72 flint varieties were grown and of these 44 were tested three years or more. In the list of the 20 highest yielding flint varieties at Mt. Carmel, tested for three years or more there are 15 which are also in the list of 20 highest yielding fint varieties at Storrs. Therefore three out of four are among the highest vielders in both places, whereas by pure chance alone less than one out of four would be found on both lists.

HIGHEST YIELDING FUNT VARIETIES.

Those varieties that are among the highest yielders at both places are given in italics. All varieties are listed alphabetically and not in order of their productiveness:

GROWN AT MT. CARMEL Avery's White Flint Bacon's Gold Nugget Behan's Longfellow Bissetl's Yellow Dutton Burwell's Yellow Flint Frost's Yellow Flint Gelston's Longfellow Ibsen's Yellow Flint Keeler's Longfellow Mammoth White Flint McLean's Flint Mosher's Longfellow Pied Flint Purdy's Gold Nugget R. I. Exp. Station's R. I. White Flint R. I. Exp. Station's R. I. White Flint Sanford White Flint Skilton's Smut Nose Flint Skilton's Yellow Flint U. S. Dept. Agric. No. 193 Zwick's Yellow Flint

GROWN AT STORRS Bacon's Gold Nugget Behan's Longfellow Bissell's Yellow Dutton Burwell's Yellow Flint Chace's Yellow Flint Frost's Yellow Flint Griswold's Canada Yellow Hauschild's Yellow Flint Healy's Yellow Flint Keeler's Longfellow Mammoth White Flint Mosher's Longfellow Pied Flint Purdy's Gold Nugget Skilton's Yellow Flint Stickney's Yellow Flint U. S. Ďepí. Agric. No. 193 Zwick's Yellow Flint

PRODUCTIVENESS OF DENT VARIETIES AT MT. CARMEL AND AT STORRS.

In all, 70 varieties of dent corn were grown at Mt. Carmel and 69 at Storrs. Of these 36 and 37 respectively were tested three years or more. Of the 20 highest yielding dent varieties at Mt.

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Carmel 14 are also among the 20 highest at Storrs. Here again nearly three out of four of the high yielders are the same varieties in both places where the chances, if all varieties were potentially equal, would be about one in four. Among six high yielding varieties at Mt. Carmel that are not in the high yielding list at Storrs there are four that were late varieties from the southern part of the state or farther south that did not ripen well at Storrs. On the other hand four of the six high yielders at Storrs not represented at Mt. Carmel are medium or early varieties from the central or northern part of the state and for that reason might not be expected to yield well at Mt. Carmel.

HIGHEST YIELDING DENT VARIETIES

Those varieties that are among the highest at both places are given in italics. All varieties are listed alphabetically and not in order of their productiveness.

GROWN AT MT. CARMEL Beardsley's Learning Brewer's Dent Century Dent Connecticut Dent Cornell No. 11 Dowd Dent Early Michigan Funk's 90 Day Herr's White Cap Klondvke Lakeside Dent Lanterman's Learning Luce's Favorite Minnesota White Cap Northern White Dent Silver King Sutton's Dent Truon Dent Vinehill Learning Webber's Dent

GROWN AT STORRS Beardsley's Learning Century Dent Dowd Dent Early Michigan Hamilton's Learning Herr's White Cap Hickory King Johnson's Yellow Dent Lakeside Dent Lanterman's Learning Luce's Favorite Northern White Dent Peck's Yellow Dent Prince's Learning Sharon White Cap Silver King Sutton's Dent Truon Dent Vinehill Learning Webber's Dent.

The high yielding varieties of both dents and flints were somewhat later in maturing on the average than the general run of varieties. There were no early dents in the list of 20 highest either at Storrs or Mt. Carmel. Among the 20 flints there were five early varieties at Storrs and three at Mt. Carmel. Most of the high yielding varieties were medium in time of ripening. The correlation between number of days to mature and yield is rather high when the dents and flints are considered together, the co-efficient of correlation being $\pm .580 \pm .035$ for the Storrs data. For the flints alone the correlation co-efficient is $\pm .416 \pm .039$ and for the dents alone, $-.039 \pm .050$. The lack of correlation in the latter case is due to the fact that many late varieties did not mature properly and yielded poorly for that reason. The high correlation for the dents and flints together is due to the fact that the dents as a class ripen later than the flints and yield correspondingly more.

QUALITY OF HUSKED CORN.

With regard to quality of husked corn the high yielding varieties are surpassed by some early ripening sorts as might be expected. Data were obtained at Storrs on the amount of moisture in the ear corn at husking and the proportion of soft corn, which includes all corn that is immature, moldy and otherwise unfit to crib well. These figures for the dents and flints calculated on the percentage basis relative to Burwell are given in the accompanying table.

Comparison of the Highest Yielding Dents and Flints with all Varieties in Relative Amount of Dry Matter and Soft Corn.

ative int of corn
20
79
99
74

In general, therefore, it is apparent that a high yielding variety will be obtained with some sacrifice in quality of corn and with some risk as to maturity. None of the high yielding dents are in the class of early varieties. On the other hand some of the highest yielding varieties are below the average in the proportion of soft corn. In the amount of stover produced the twenty highest dents and flints at Storrs, where the data were taken, are above the average as would be expected, as a vigorous growth with large stalks and leaf surfaces is necessary to make large yields.

VARIETIES FOR SILAGE.

Since many varieties of corn are grown for silage which do not mature properly for husking a separate test of corn for silage has been made at both Storrs and Mt. Carmel. The method of planting the varieties with the use of check and guard rows has been the same as with the other varieties. Enough seed was used to insure as nearly perfect a stand of plants as possible and the excess seedlings thinned out as soon as large enough to be pulled. As explained before, the entire stalks from each plot were weighed in the field as soon as cut and a sample taken to determine the amount of moisture in the corn as it would go into the silo. Yields are based on the total amount of dry matter produced.

Seventy-eight varieties were tested for silage purposes at Storrs of which 26 were grown three years or more. Of the total number 6 varieties were flints. The others were dents with the exception of a few varieties like Hickory King and Luce's Favorite which are intermediate in type. At Mt. Carmel 46 varieties were tested, 21 being grown three years or more. Five varieties of flints were included.

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HIGHEST YIELDING SILAGE VARIETIES.

Those varieties that are among the highest at both places are given in italics. All varieties are listed alphabetically and not in order of their productiveness.

GROWN AT MT. CARMEL	GROWN AT STORRS
Beardsley's Learning	Beardsley's Learning
Brewer's Dent	Dowd Dent
Eureka	Early Michigan
Funk's 90 Day	Eureka
Gelston's Ensilage	Funk's 90 Day
Griswold's White Cap	Hickory King
Klondyke	Klondyke
Lakeside	Lakeside
Luce's Favorite	Leaming (W. H. Strong)
Mastodon	Mastodon
Northern White Dent	Northern White Dent
Webber's Dent	Sutton's Dent

The accompanying list of 12 highest yielding varieties at Storrs and Mt. Carmel is based on the percentage rating giving the yield in dry matter per acre relative to the yield of Eureka stated as 100 per cent. If we consider only the highest yielding six varieties at both places, which is roughly one-fourth of the number of varieties grown three years or more, we find that four varieties are included on both lists. Since the expectancy on the basis of random distribution is less than one in sixteen because not all varieties were grown at both places it is apparent that the test has brought out actual differences in yielding capacity.

At both Storrs and Mt. Carmel, Eureka has given the highest average yield of dry matter per acre of all varieties, with Mastodon second. These late maturing southern grown varieties make a large vegetative growth but seldom go beyond the milk stage at Storrs. At New Haven the grain frequently reaches the soft dough stage and in some years many of the ears are glazed. However, the proportion of grain is always low even under the best conditions. The leaves also frequently die and fall off the lower half of the stalks due to the dense shading so that the silage is largely made up of stalks. As the corn goes into the silo the per cent of dry matter is lower than the average of all varieties tested as follows:

		Dry Matter.
		Mt. Carmel
Eureka		27
Mastodon		29
Average of all varieties	26	31

It is therefore apparent that these late varieties make silage that is bulky but low in actual food value. Eureka silage is higher in water and crude fiber and lower in protein, sugar, starch and fat than earlier maturing varieties. However, the greater production of dry matter per acre tends to make up for this but the amount of some of the ingredients per acre produced by Eureka and Mastodon is still below the production of varieties that regularly reach the dough stage as shown by the data at Storrs.

PRODUCTION IN POUNDS PER ACRE OF THE PRINCIPAL INGREDIENTS OF SILAGE FROM DIFFERENT VARIETIES.

	Ash	Crude Protein	Crude Fiber	Nitrogen Free Extract	Fat	Total Dry Matter
Eureka	361	490	2455	5244	108	8658
Mastodon	372	569	2087	5087	132	8247
Leaming	307	623	1792	5244	195	8161
Pride of the North	246	505	1326	4353	169	6599

As producers of starch and sugar (nitrogen free extract) and mineral matter (ash) the very late varieties are equal to any varieties but are deficient per unit of area in protein and fat.

There is also the question of comparative palatability and digestibility of the silage which obviously cannot be answered save by feeding the silage and noting the result. This has been done at the Storrs Station and the results have been reported by Slate, White and others. The experiment was carried out by growing three different types of corn—early, medium and late—and feeding the silage of these varieties separately to three different lots of milk cows. The varieties chosen were: Pride of the North, as a variety which regularly reaches the hard dough stage at Storrs; Leaming, from seed grown in Ohio which reaches the soft dough stage and makes a large stalk growth; and Eureka, a southern white variety from seed grown in Virginia, which seldom has time to grow beyond the blister or milk stage. All animals were fed the same amount of silage supplemented with hay. The amount of grain fed was varied to maintain constant weight. The results are summarized by the authors as follows:*

1. "Silage from the Early Maturing (Pride of the North) corn has a superior feeding value for milk production to the Late Maturing (Eureka), while the Medium Maturing (Leaming) lies intermediate. The dry matter content of the Leaming is almost exactly halfway between the other two and likewise the feeding value proved to be about halfway between. This is clear when it is stated that with Early silage 28.57 pounds of grain was required to produce each hundred of milk, being 9.74 pounds less than for Late and 4.76 less than for Medium."

2. "Due to the larger acre yields of Late and Medium, they will produce more food and hence more milk per acre than the Early maturing corn. The Late has the advantage in this respect, although to procure 500 pounds more of milk it was necessary to handle four tons more of silage in and out of the silo. On land where Early will yield 69 per cent. and where Medium will yield 85.6 per cent. as much as Late, they are on even terms in production value. Our yields of Early and Medium were 60 per cent.

^{*}Storrs Agric. Exper. Station Bull. 121, 1924.

and 80 per cent. respectively of the tonnage of Late. About 1.2 acres of Early and 1.1 acres of Medium were, therefore, required to equal one acre of Late in feeding value."

3. "These results justify the use of the Late maturing, high yielding varieties of corn on the intensive dairy farms of northern and northeastern United States. However, where saving of other feeds is primary, the Medium corn of good yielding capacity, which reaches the dough stage before harvesting is nearly equal to the Late in acre milk production value, and ton for ton it will produce milk at a 13 per cent. saving of other feeds. But the Early maturing varieties will generally lose out in intensive dairy sections because of their low yield, even though they are more valuable ton for ton."

4. "The solution of the problem will doubtless be found in this statement: On farms where the price of milk is low and it is desired to save as much grain as possible, Medium should pay best; but on a farm where the available corn land is limited and the price of milk reasonably high, Late should pay best."

Comparison of Dent and Flint Corn.

Many things must be taken into consideration in comparing dent with flint varieties of corn with regard to their suitability for grain and fodder production. The principal points to be considered are maturity, yield, quality of grain, character of fodder and germination of the seed. Both tests at Storrs and Mt. Carmel show that the flint on the average matures earlier than the dent corn. There is a difference of seven per cent. in favor of the flints at both places when maturity is given a percentage rating relative to the maturity of one variety grown throughout the test. On the other hand the dents yield more as might be expected since they have a longer growing season. At Storrs all of the dents average 58 bushels, the flints 55 bushels. At Mt. Carmel the yields were 62 to 59 in favor of the dents. To answer the question as to whether or not there is any difference in the relative efficiency of the two types, that is, the rate production in a given time, medium ripening dents are compared with flints which had the same length of growing season. Only varieties grown three years or more are used. Twenty-two flints averaged 55.4 and 23 dents averaged 59.8 bushels at Storrs. This is a difference of 7.9 per cent. in favor of the dents. At Mt. Carmel comparing varieties of the same growing season, 33 flints averaged 59.1 and 20 dents averaged 65.3 bushels. This is a difference of 10.5 per cent. in favor of the dents. Taking all varieties and dividing the relative yield by the relative number of days to mature we get 0.990 and 0.924 per cent. for dents and flints respectively at Storrs and 0.971 and 0.940 at Mt. Carmel. These figures are the average production per day relative to the standard variety with which they are all compared. It is thus

seen that on the basis of production per day the dents are somewhat more efficient than flints.

To offset this advantage the flints are more certain producers and over a period of years will ripen their crop more consistently than will the dents. In unfavorable seasons the highest flints will outyield the highest yielding dents. Moreover, all but the very late varieties of flint corn will practically always ripen sufficiently to crib well whereas many of the later dent varieties occasionally will not ripen satisfactorily. Flint corn has less soft corn and consequently has somewhat greater feeding value. Also flint corn seed will often germinate better unless special precautions are taken to store dent corn so that it will dry thoroughly before freezing weather.



Figure 29.

Upland situations usually escape the first fall frosts and consequently can mature later varieties.

The large kernels and hard texture of flint corn are objectionable for some purposes and the larger number of ears per plant and the stronger shanks make the labor cost of harvesting flint corn greater. Flint corn produces more stalks from the same amount of seed and the stalks are more slender. Consequently flint corn fodder is more preferred than dent, more of it is eaten and the refuse stalks are less difficult to handle in the manure.

COMPARISON OF YELLOW AND WHITE CORN.

Investigations conducted at the Wisconsin Station and elsewhere show that yellow corn has a slightly greater feeding value than white corn, due to a higher vitamine content. This is shown most clearly by pigs which do not have access to green pasture. Cattle and horses fed clover, alfalfa hay or silage show no difference in

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the feeding value of yellow or white corn. These experiments have been conducted with western dent corn. It is not established that white flint corn is less valuable than yellow flint corn for feeding purposes. Since both colors in flint corn are about equally common there seems to be no popular prejudice against white flint corn. In contrast to this very few purely white varieties of dent corn are grown in New England. In productiveness yellow and white corn are equal. At Mt. Carmel 58 yellow dent varieties averaged 105.9 and six white dent varieties average 106.8 per cent. relative yield. Forty-seven yellow flints altogether gave a yield

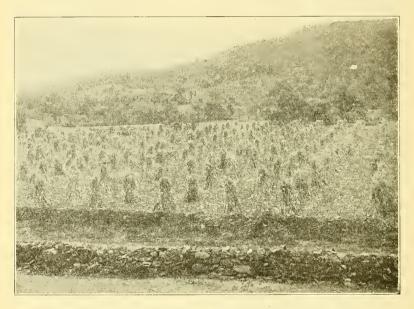


Figure 30. In the valleys corn must mature before the first fall frosts.

of 91.4 and 15 white flints 91.8 per cent. These differences are too small to be significant.

RECOMMENDED VARIETIES.

Varieties which yield well in the southern part of the state will not ripen in the more northern parts at higher altitudes. On the other hand early varieties which ripen in the short season localities do not yield as well as later varieties where the season is longer. Also varieties differ in their adaptability to different soils and crop rotations. An attempt has been made in the accompanying map to divide the state arbitrarily into five districts and to compile a list of varieties which will most likely do well in their respective districts. The districts are numbered in order of the length of growing season, number one in general requiring the earliest maturing varieties and five the latest. Since the varieties were tested in only two of these districts their behavior in the other districts cannot be stated except as they have already been grown there. Moreover corn which is taken from one district and tested in another may not show its value for its own district. But since there are a number of varieties from other districts that yielded well in both districts I and V it is thought that they will do well in other places where they are not now commonly grown.

For these reasons it should be clearly understood that the lists of recommended varieties are suggestive only. All new varieties should be carefully tried in the locality where they are to be grown. Many trials of this kind have been conducted by the Farm Bureaus in the various districts and much information is already available as to suitable varieties.

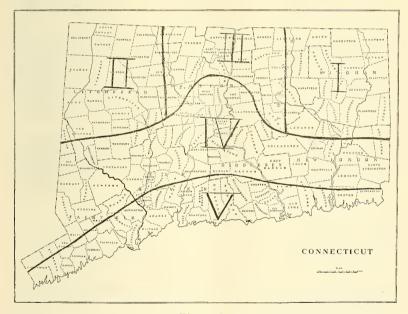


Figure 31.

Connecticut divided into five arbitrary corn growing districts according to the length of growing season.

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The following high yielding varieties and strains seem to be well adapted for the districts indicated and shown on the map. It must be borne in mind that these sections cannot take into consideration all differences in soil, altitude and climate. The varieties listed for each district cannot all be grown successfully in all parts of the district. Some of the varieties have not been grown in the district for which they are recommended so that their adaptation to that district is not proven. The varieties are listed approximately in order of their earliness.

DISTRICT I.

GRAIN.

Flints.	
Rhode Island White Cap	R. I. Exp. Station, Kingston, R. I.
Canada Yellow Flint	Griswold & Sons, So. Wethersfield
Skilton's Yellow Flint	Julius Skilton, Watertown
Burwell's Yellow Flint	
Healey's Yellow Flint	L. H. Healey, Woodstock
Stickney's Yellow Flint	L. J. Grant, Wapping
Zwick's Yellow Flint	Louis Zwick, Plantsville
Dents.	
Pride of the North	Conn. Agricultural College, Storrs E. K. Dean, Sharon
Pride of the North Sharon White Cap	E. K. Dean, Sharon
Pride of the North Sharon White Cap Century Dent	E. K. Dean, Sharon S. M. Waldron, New Milford
Pride of the North Sharon White Cap Century Dent Herr's White Cap	E. K. Dean, Sharon S. M. Waldron, New Milford W. F. Herr, Brooklyn
Pride of the North Sharon White Cap Century Dent. Herr's White Cap. Early Michigan.	E. K. Dean, Sharon S. M. Waldron, New Milford
Pride of the North Sharon White Cap Century Dent. Herr's White Cap. Early Michigan. Leaming.	E. K. Dean, Sharon S. M. Waldron, New Milford W. F. Herr, Brooklyn G. A. Erskine, Guilford H. Hamilton, Ellington
Pride of the North Sharon White Cap Century Dent. Herr's White Cap. Early Michigan. Learning. Vinehill Learning.	E. K. Dean, Sharon S. M. Waldron, New Milford

SILAGE.

Lakeside	N. Jones, South Windsor
Learning.	H. Beardsley, Roxbury
Early Michigan	G. A. Erskine, Guilford
Northern White Dent	B. W. Bishop, Guilford

DISTRICT II.

GRAIN.

r linis.	
Frost's Yellow Flint	Charles Frost, Sherman
Burwell's Yellow Flint	
Skilton's Yellow Flint	
Yellow Dutton	
Gold Nugget	
Sanford White Flint	
Gelston's Longfellow	
Mosher's Longfellow	N. R. Mosher, Sherman
0	· · · · · · · · · · · · · · · · · · ·
Dents.	
Sharon White Cap	E. K. Dean, Sharon
Century Dent.	S. M. Waldron, New Milford
Webber's Dent	Willis Frost, Bridgewater
Beardsley's Learning	

SILAGE.

Same as District I.

Flimto

DISTRICT III

GRAIN.

GRAIN.
Flints.
King PhilipW. E. Price, Warehouse Point
Hill's Red FlintS. F. Brown, Windsor
McLean's FlintJ. B. McLean, Simsbury
Stickney's Yellow FlintL. J. Grant, Wapping
Healey's Yellow FlintL. H. Healey, Woodstock
Dents.
Hasting's Yellow DentW. S. Hastings, Somers
Early Lakeside
Pride of the North Storrs Agricultural Experiment Station
Century DentS. M. Waldron, New Milford
Leaming
Herr's White CapW. F. Herr, Brooklyn

Same as District I.

SILAGE.

DISTRICT IV.

GRAIN.

GILA	.111.0
Flints.	
Skilton's Yellow Flint	Julius Skilton, Watertown
Zwick's Yellow Flint	Louis Zwick, Plantsville
Burwell's Yellow Flint	E. E. Burwell, New Haven
Frost's Yellow Flint	
Longfellow	R. Keeler, Bridgewater
Longiellow	P. J. Behan, Roxbury
Sanford White Flint	Jesse St. John, Kent
Gold Nugget	Mary Bacon, Kent
U. S. Dept. Agriculture No. 193Bur	eau Plant Industry, Washington, D. C.
Dente	
Dents.	
Century Dent.	S. M. Waldron, New Milford
Early Lakeside	N. Jones, So. Windsor
Beardsley's Learning	H. Beardsley, Roxbury
Webber's Dent.	Willis Frost, Bridgewater
Webber's Dent.	. College of Agriculture, Ithaca, N.Y.
Brewer's Dent	N. H. Brewer, Hockanum
Vinehill Learning	
Hazenhurst White Cap	E. Hazen, Haddam
Early Michigan	G. A. Erskine, Guilford
Leaming	W. A. Lanterman, Fairfield
Herr's White Cap	W. F. Herr, Brooklyn

SILAGE.

Beardsley's Learning	H. Beardsley, Roxbury
Hazenhurst White Cap	E. Hazen, Haddam
Brewer's Dent.	N. H. Brewer, Hockanum
Webber's Dent.	Willis Frost, Bridgewater
Northern White Dent	B. W. Bishop, Guilford
Luce's FavoriteSuffe	
Leaming	F. S. Prince, Xenia, Ohio
Funk's 90 DayFun	

DISTRICT V.

GRAIN.

Flints.
Burwell's Yellow FlintE. E. Burwell, New Haven
Longfellow
LongfellowP. J. Behan, Roxbury
Sanford White FlintJesse St. John, Kent
Frost's Yellow FlintCharles Frost, Sherman
Gold NuggetMary Bacon, Kent
Gold NuggetA. L. Purdy, Port Chester, N. Y.
U. S. Dept. Agriculture No. 193 Bureau Plant Industry, Washington, D. C.

Dents.

Century
Lakeside Dent
Beardsley's Learning
Webber's DentWillis Frost, Bridgewater
Early MichiganG. A. Erskine, Guilford
Herr's White CapW. F. Herr, Brooklyn
Brewer's DentN. H. Brewer, Hockanum
Lanterman's LearningW. A. Lanterman, Fairfield
Northern White DentB. W. Bishop, Guilford
Luce's Favorite
Sutton's DentR. C. Wilcox Sons, Guilford
Vinehill LearningVinehill Farm, Elmwood

SILAGE.

Northern White Dent	B. W. Bishop, Guilford
Leaming	S. F. Prince, Xenia, Ohio
Funk's 90 Day	. Funk Bros. Seed Co., Bloomington, Ill.
	E. G. Packard, Dover, Del.
	Ross Bros. Seed Co., Worcester, Mass.

CHANGING SEED.

Some of the high yielding varieties as shown in these tests, are now no longer grown by the farmers from whom they were secured. In a few cases these varieties cannot be located anywhere and it is probable that they have been lost. From this it is seen that the practice of changing seed is quite common in Connecticut. These tests show clearly that it is not necessary to secure new varieties from another part of the state or from without to maintain high yields. Many of the very best varieties have been grown continuously on the same farm for as long as there is any record and there is no reason why they should not go on giving satisfaction.

The more than one hundred and fifty varieties and strains of corn grown in Connecticut is in marked contrast to the central corn growing districts where a single variety is grown almost exclusively over wide areas. New varieties should not replace well established varieties until their superiority has been demonstrated on the farm where the corn is to be grown.

SUMMARY.

Nearly 150 different varieties and strains of flint and dent corn have been grown at Mt. Carmel and at Storrs to compare their vield of grain and time of ripening. These varieties are described and a history of their origin is given as far as known.

Certain varieties have yielded among the highest at both places. These are listed on pages 401, 402 and 404.

Dent varieties on the average require a longer growing season than flints and vield more grain and stover.

When dent and flint varieties maturing in the same length of time are compared the dents on the average yield 7.9 per cent. more at Storrs and 10.5 per cent. more at Mt. Carmel than the flints showing that they are somewhat more efficient as producers of grain, but the dents do not always ripen as satisfactorily as the flints.

In some seasons the highest yielding flint varieties surpass the highest yielding dent varieties at both places tested.

There is no difference in the yield of yellow and white dent varieties or of flint varieties.

The state is divided into five districts, and dent, flint and silage varieties recommended for trial in each district are listed on pages 409 to 411.

REFERENCE TO LITERATURE CITED.

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- parative nutritive value of white and yellow maizes. Jour. Biol. Chemistry, 1920, vol. 41, pp. 81–96.

Relative yield, per cent.	90.4 90.4 90.4 90.4 90.1
Actual yield, bu. per acre.	68.55.5 69.55 60.55
Maturity.	Medium Medium Medium Early Early Medium Medium Medium Barly Medium Medium Medium Medium Medium Medium Medium Medium Medium Medium Medium Medium Medium Medium Medium Medium Barly Medium
, Color.	Yellow White Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow
No. years tested.	0
Боигсе оf seed.	 S. D. LaBarr, Greenwich. S. D. LaBarr, Greenwich. B. T. Averyl, Pondret Landing. B. T. Avery, Jucasville. C. M. Beebe, Uncasville. C. E. Borger, New Preston C. E. Borger, New Preston C. E. Burwell, New Haven. F. E. Burwell, New Haven. Thomas Griswold & Sons, South Wethersfield Jason Lathrop, Plainfield. L. S. Abbe, Hazardville. L. S. Abbe, Hazardville. David Crowell, Middletown P. E. Davis, Granby, Mass. W. A. Thrall, Winddetown P. E. Davis, Granby, Mass. Mary Bacon, Kent. Mary Bacon, Kent. Mary Bacon, Kent. Julius Hauschild, Storrs. John Bashan, Neidelboury W. E. Price, Watchouse Point U. Bashan, Middlebury
Variety	Argentine Flint. Argentine Flint. Avery's White Flint. Beebe's Yellow Flint. Borger's Yellow Flint. Burwell's Flint. Burwell's Flint. Canada Yellow Flint. Canada Yellow Flint. Canada Yellow Flint. Connecticut Yellow Flint. Connecticut Yellow Flint. Connecticut Yellow Flint. Connecticut Yellow Flint. Flint. Connecticut Yellow Flint. Flint. Flint. Femi's 12 Row Floot Nugget. Gold N

TABLE I. FLINT VARIETIES GROWN AT MT. CARMEL.

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CONNECTICUT EXPERIMENT STATION

BULLETIN 259.

$\begin{array}{c} 100.0\\ 93.2\\ 95.3\\ 95.3\\ 95.3\\ 95.3\\ 94.4\\ 84.1\\ 84.1\\ 84.1\end{array}$	85.2 90.8 86.5 86.5 77.3 104.4	81.3 81.3 93.7 93.7 85.5 85.5	$\begin{array}{c} 106.6\\ 77.0\\ 82.9\\ 938.6\\ 938.6\\ 938.6\\ 793.8\\ 86.2\\ 86.2\\ 86.2\\ 86.2\\ 86.2\\ 884.8\\ 86.2\\ 884.8\\ 886.2\\ 884.8\\ 886.2\\ 889.7\\ 899.7\\ 899$
56.1 53.9 53.9 57.6 57.6 57.6 55.6 55.6	62.1 62.1 63.2 54.5 75.9 85.3	622.2 57.6 55.3 60.9 39.4 40.6	$\begin{array}{c} 64.0\\ 36.6\\ 56.9\\ 56.9\\ 56.1\\ 54.1\\ 54.1\\ 51.2\\ 51.2\\ 51.2\\ 61.9\\ 61.9\\ 61.9\\ 61.3\\ 61.9\\ 61.6\\ 60.7\\ 66.6\\ 66.6\end{array}$
Medium Early Medium Early Late Late Early Medium	Medium Medium Early Early Medium	Early Early Medium Medium Medium	Medium Barly Barly Medium Medium Medium Medium Medium Medium Medium Medium Medium Medium
Yellow Yellow Yellow White Yellow Yellow White Yellow	wmue Red Red Red White White	White White White White Yellow	White White White Yellow Yellow White White Yellow Yellow Yellow Yellow Yellow Yellow
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Longfellow P. J. Behan, Roxbury. Longfellow N. G. Gelston, Sherman. Longfellow Reuben Keeler, Bridgewater Longfellow N. R. Mosher, Sherman. Mammoth White Flint. N. R. Mosher, Sherman. Mammoth Yellow Flint. S. Olmsted, Hazardville. McLean's Flint. J. B. McLean, Snubuy. Montgomery's White Flint. J. B. Montgomery, Mt. Carmel. Pied Flint. Reuben Keeler, Bridgewater	Red Flint. Benj. Neleber, Colchester. Red Flint. Albert Hale, South Glastonbury. Red Flint. S. F. Brown, Windsor. Rhode Island Premium. W. J. Clark, Woodbury Rhode Island White Flint, E. P. Barnes, Norwich.	White Flint White Flint White Flint White Flint White Flint Flint.	Tint Jesse Flint Jesse Flint C. H. Flint Julius Flint Julius Flint G. A. S. Robei W Flint G. E. W Flint G. E. Flint G. E. Flint G. E. No. 193 Office Office ow E. M. ow C. H. fint F. D. ow C. M. Flut Jouris

CARMEL.
MT.
\mathbf{AT}
GROWN
VARIETIES
DENT \
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TABLE I]

Relative yield, per cent.	$\begin{array}{c} 97\\ 1114\\ 1115\\ 1$
Actual yield, bu. per acre.	72,033,03,01,11,02,02,03,03,03,03,03,03,03,03,03,03,03,03,03,
.γ.ίπιβεΜ	Medium Late Late Nedium Medium Medium Medium Very late Very late Very late Late Barly Early Late Medium Medium Medium Medium Medium Medium Medium Medium Medium Medium
Color.	White Yellow
No. years tested.	4 2-22-4 00004-00-000000000000000000000000
. Бээг о гээтгод	 Adolph Bahler, Ellington . M. H. Brewer, Hockanum B. F. Page, Durham. S. M. Waldron, New Milford B. F. Page, Durham. S. M. Waldron, New Milford Harris Seed Co., Coldwater, New York Dept. of Plant Breeding, Cornell Univ., Ithaca, New York Dept. of Plant Breeding, Cornell Univ., Ithaca, New York Dibble Seed Co., Honeoye Falls, New York. Dibble Seed Co., Bloomington, III W. I. Gelston, East Haddam P. H. Woofford, Avon. P. Mars. Seed Co., Bloomington, III W. I. Gelston, East Haddam P. M. Wolks. M. H. Wolford. M. H. Williams, Sunderland, Mass. M. Jones, West Ortk. M. H. W
Variety.	Bahler's White Dent Brewer's Dent Brewer's Dent Century Dent Clark's Early Wonder Clark's Early Wonder Connell No. 12 Cornell No. 12 Dovd Dent Funk's 90 Day Funk's Dent Funk's 90 Day Golden Dent Funk's 90 Day Har's Yellow Dent Hartings Yellow Dent Herr's Yellow Dent Lakeside Dent Lakeside Dent Lakeside Dent Lakeside Dent Lakeside Dent Lakeside Dent

$\begin{array}{c} 111.1\\122.4\\111.7\\106.7\\117.6\\116.4\\32.4\end{array}$	$\begin{array}{c} 138.8\\1177.5\\91.2\\120.1\\98.1\\115.1\\75.7\end{array}$	$\begin{array}{c} 133.4\\ 121.9\\ 92.4\\ 82.9\\ 82.8\\ 85.8 \end{array}$	$\begin{array}{c} 69.0\\ 100.9\\ 116.8\\ 1116.8\\ 81.0\\ 77.7\\ 1113.7\end{array}$	$\begin{array}{c} 91.2\\ 110.8\\ 120.5\\ 93.9\\ 93.9\\ 120.5\\ 120.5\\ 120.5\\ 80.2\\ 80.2\\ 80.2\\ 80.2\\ 99.9\end{array}$
$\begin{array}{c} 64.2\\ 60.4\\ 57.0\\ 50.7\\ 79.6\\ 60.1\\ 15.4\end{array}$	$110.6 \\ 61.9 \\ 62.9 \\ 65.3 \\ 46.6 \\ 81.7 \\ 81.7 \\ 44.4$	88.2 77.0 52.3 55.6 57.7 59.7 59.7	$\begin{array}{c} 32.8\\ 65.2\\ 64.8\\ 63.6\\ 38.5\\ 81.8\\ 81.8\end{array}$	$\begin{array}{c} 44.8\\ 65.3\\ 65.3\\ 65.3\\ 65.3\\ 72.2\\ 63.7\\ 63.7\\ 73.1\\ 73.1\\ 53.5\\ 53.5\end{array}$
Medium Late Late Medium Early Medium	Very late Late Medium Late Medium Late Early	Medium Late Late Medium Very late Late Very late	Laté Early Medium Medium Late Late Medium	Medium Very late Very late Medium Medium Medium Medium Barly Medium
Yellow Yellow Yellow Yellow Yellow Yellow	Yellow Yellow White Yellow Yellow Yellow	White White Yellow Yellow Yellow Yellow	Yellow Yellow White Yellow Yellow Yellow Yellow	Yellow Yellow White Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow
4001-4-				<u>8 1 8 1 8 8 8 9 8 9 8 9 8 9 8 9 8 9 8 9 </u>
 H. Hamilton, Ellington. W. A. Lanterman, Fairfield. P. S. Prince, Xenia, Ohio N. S. Strong, North Plain. W. H. Strong, Avon. Vinehill Farm, Elmwood. W. E. Salmon, Brooklyn. 	Wintenoise Farms, Paoli, Penna. Suffolk Co-operative Assoc., Mattituck, N. Y W. W. Chappell, North Franklin. G. A. Erskine, Guilford. H. J. Larkham, Norwichtown. C. S. Griswold, West Hartford. W. A. Stooking & Sons, Weatogue.	tt Pheips Montgomery, Mr. Carmel. B. W. Bishop, Guilford B. O. Peck, East Haddam W. G. Qulley, Storrs I. N. Hollister Glastonbury L. W. Kürk, Hamden F. S. Platt Seed Co., New Haven.		 Ormee of Cereal Investigations, Bureau of Plant Ind., Wash., D. C. 5 Office of Cereal Investigations, Bureau of Plant Ind., Wash., D. C. 9 Office of Cereal Investigations, Bureau of Plant Ind., Wash., D. C. Dept. of Plant Breeding, Cornell Univ., Ithaca, N. Y. Willis Frost, Bridgewater. Willis Frost, Bridgewater. Willis Frost, Bridgewater. W. F. Hent, Brooklyn. L. C. Root & Son, New Milford. N. S. Strong, North Plain. Joseph Whathley, Kent. G. C. Woodford, Plainville.
Leaming Leaming Leaming Leaming Leaming Leaming Long Island Dent	Long's Champion Dent. Luce's Favorite Mason's White Dent. Barly Michigan. Early Michigan. Minnesota White Cap Minnesota No. 13.	Montgomery's White Dent Northern White Dent Peck's Yellow Dent Pride of the North Pride of the North Red Cob	Keynolds Dent. Sciota. Dent. Sharon White Cap. Silver King. Sutton's Dent. Sweepstakes Sweepstakes Tryon Dent.	U.S. Dept. of Agrie. No. 13 U.S. Dept. of Agrie. No. 12 U.S. Dept. of Agrie. No. 11 U.S. Dept. of Agrie. No. 11 Webber's Dent. Webber's Dent. White Cap. White Cap. White Cap. White Cap. White Cap. White Cap. White Cap.

Relative dry matter per cent.	$\begin{array}{c} 72.5\\ 75.5\\$
Actual dry matter tons per acre.	0.400.400.40444444664666664 1000240010622
Relative green matter per cent.	41 63 63 64 64 64 64 64 64 64 64 64 64
Actual green matter tons per acre.	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0
Per cent. dry matter.	$\begin{array}{c} & & & & & & & & & & & & & & & & & & &$
.viintsM	Medium Late Late Late Medium Medium Barly Medium Medium Medium Medium Medium Medium Late Date Very late Late Very late Very late Very late Very late Very late Very late Very late Very late Very late
Color.	White Yellow Yellow Yellow Yellow Yellow White Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow
No. years tested.	07-124-1000004-94-449-01-100
.beed.	 Adolph Bahler, Ellington N. H. Brewer, Hockanum B. F. Page, Durham. S. M. Waldron, New Milford G. L. Howes, Stamford. G. L. Howes, Stamford. E. Curtain, East Windsor E. Curtain, East Windsor B. C. Wilcox Sons, Guilford. Ross Fros. Seed Co., Worcester, Mass. Funk Bros. Seed Co., Worcester, Mass. Funk Bros. Seed Co., Worcester, Mass. Funk Bros. Seed Co., Worcester, Mass. Mary Bacon, East Haddam. Mary Bacon, Kent. Dense, Hawinton. E. Hazen, Haddam. George Hale, Westbort. B. Beardsley, Roxbury. L. P. Drake, Harwinton. H. Hamilton, Ellington H. Auris, Middletown. W. A. Lanterman, Fairfield. W. S. Prince, Xenia, Ohio.
Variety.	Bahler's White Dent. Brewer's Dent. Brewer's Dent. Century Dent. Connecticut Dent. Connecticut Dent. Contrain's Yellow Dent. Diblé s Yellow Dent. Dent. Dowd Dent Funk's 90 Day. Funk's 90 Day. Golden Dent. Golden Dent. Golden Dent. Golden Dent. Golden Dent. Colden Dent. Leaming Leaming Leaming Leaming Leaming Leaming Leaming

TABLE III SILAGE VARIETIES GROWN AT MT. CARMEL.

CONNECTICUT EXPERIMENT STATION. BULLETIN 259.

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$\begin{array}{c} 65.9\\ 71.4\\ 82.0\\ 65.6\\ 77.8\\ 85.4\\ 76.6\\ 66.6\\ 76.6\\ 75.2\\ 75.2\\ 75.2\\ 77.1\\ 75.2\\ 70.1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1$	00.0 76.0 62.9
	8.44.3 9.9
$\begin{array}{c} 47.47\\ 47.17\\ 66.98\\ 66.98\\ 66.74\\ 66.72\\ 66.78\\ 66.74\\ 66.78\\ 66.78\\ 66.74\\ 66.78\\ 66$	$ \begin{array}{c} 04.9\\ 58.9\\ 67.8\\ 57.7 \end{array} $
$\begin{array}{c} \textbf{9.6}\\ \textbf{177.0}\\ \textbf$	12.2 17.5 14.7
$\begin{array}{c} \begin{array}{c} & 36.4 \\ & 233.6 \\ & 233.6 \\ & 233.2 \\ & 232.7 \\ & 233.2 \\ & 233$	24.0 36.6 27.4 27.0
Yellow Medium Yellow Barly Yellow Medium White Medium White Barly Yellow Medium White Barly Yellow Medium White Larle Yellow Medium White Very late Yellow Barly Yellow Barly Yellow Barly Yellow Barly Yellow Late White Medium White Medium Yellow Late	Yellow Early Yellow Medium Yellow Early Yellow Early
0-04-000000000000	11040
Vinela Flint. Vinela Flint. Platt 8 Suffoll White Flint. O. S. of Cellow Flint. Louis die Dent. I. Outs Vo. 13. W. A. North. E. G. North. I. W. North. I. W. North. I. W. Sorth. I. W. North. I. W. Sorth. I. W. Sorth. I. W. North. I. W. Sorth. I. W. North. I. W. Sorth. I. W. North. I. W. Sorth. C. B. W. A. Sorth. I. W. North. I. W. Sorth. C. B. W. Sorth. C. Sorth. C. Sorth	Tryon Dent

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TABLE IV FLINT VARIETIES GROWN AT STORRS.

floz .ter cent. soft corn per cent.	$\begin{array}{c} & & & \\ & & & & \\ & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & & \\ & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & &$
Relative dry matter in ear corn per cent.	$\begin{array}{c} 101\\ 100\\ 100\\ 100\\ 100\\ 100\\ 100\\ 100$
Relative yield of grain per cent.	2100827888888888888888888888888888888888
Yield of grain bushel per acre.	$\begin{array}{c} 56 \\ 57 \\ 74 \\ 56 \\ 51 \\ 100 \\ 57 \\ 57 \\ 57 \\ 57 \\ 57 \\ 57 \\ 57 \\ $
Relative yield of stover per cent.	22222222222222222222222222222222222222
Yield of stover pounds per acre.	$\begin{array}{c} \begin{array}{c} & & & & & & & & & & & & & & & & & & &$
Maturity.	Medium Early Medium Bearly Bearly Bearly Early Early Bearly Bearly Medium Medium Medium Medium Medium Medium Medium Medium Medium Medium Medium
Color.	Yellow White White White Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow
No. years tested.	оопносоходахнадаха <i>н</i> гоодонанохохорад
.bəəz 10 əəruoZ	 S. D. LaBarr, Greenwich. Albert Averill, Pomfret Landing. B. T. Avery, Ledyard. P. A. Barnes, Preston City. C. M. Beebe, Uncasville. N. H. Barwer, Hockanum. N. H. Brewer, Hockanum. E. E. Burwell, New Haven. Thomas Griswold & Sons, So. Wethersfield Jason Lathrop. Plainfield. L. S. Abbe, Hazardville. M. W. Chare, Pomfret Landing. M. W. Chare, Pomfret Landing. David Crowell, Middletown. P. E. Davis, Granby, Mass. W. A. Thrall, Windsor. P. E. Davis, Sherman. M. Y. Chare, Sherman. M. W. Chare, Sherman. M. W. Chare, Niddlebury. Charles Frost, Sherman. M. M. Schreis, Sherman. Mary Bacon, Kent. M. C. Hayes, Granby. M. C. Hayes, Granby. M. C. Hayes, Granby. M. C. Hayes, Granby. M. C. Hase, Warehouse Point. M. C. Hase, Warehouse Point. M. G. Giston, Niddlebury. M. G. Giston, Niddlebury. M. C. Hayes, Granby. M. C. Hasen, North Haven. M. C. Hayes, Granby. M. C. Hayes, Granby. M. G. Giston, Sherman. M. G. Giston, Sherman. M. G. Giston, Sherman. M. G. Giston, Sherman. M. G. Giston, Storrs.
Variety.	Argentine Flint. Argentine Flint. Avery's White Flint. Barnes' White Flint. Brewer's Flint. Brewer's Flint. Brewer's Flint. Brewer's Flint. Canada Yellow Flint. Canada Yellow Flint. Canada Yellow Flint. Connecticut Yellow Flint. Connecticut Yellow Flint. Connecticut Yellow Flint. Connecticut Yellow Flint. Condel's Prolific. Davis Yellow Flint. Feory's Yellow Flint. Feory's Yellow Flint. Food's Vellow Flint. Food's Yellow Flint. Food's Yellow Flint. Food's Yellow Flint. Food's Yellow Flint. Hathaway's Yellow Flint. Hathaway's Yellow Flint. Hathaway's Yellow Flint. Haves' Canada Flint. Haves' Canada Flint. Haves' Canada Flint. Haves' Canada Flint. Haves' Canada Flint. Haves' Canada Flint. Longfellow. Longfellow.

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CORN IN CONNECTICUT.

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126	102	81	102	118	So	80		05	001	B C	00	06	,	00	200	20	93	91	92	00	100	95	94	00	010	97	102	108	0		69	83		,							89	86		113	84	93	81	94	
59.3	67.1	57.7	64.5	77.5	45.3	57.2		57 8	66.1		73 58.9	54.5) 	61 G	0.10	0.20	58.9	56.0	56 3	54.0	0.10	54.9	59.4	18.0	10.01	0.20	61.0	59.4	55.01	100	03.9	45.5	50.2	128[84.5]	59 8	46.7	10.7	10.1	2.80	54.4	58.8	56.3		59.2	54.1	52.9	48.1	56.7	
78 59.						105								5	21 01.5	020	96	99	67	10	200	83	22		3	00	86	10.5	001	20	00	54 45.	62	128	107	80	100	10	2	105	68	62 56		154	22	99	6648	98 56	
4,503	5,675	2,952	6,976	7,507	3,173	4,937		5 539	198	071.0	4,211	3.545	22062		0.201			~~	3,767	- 1	÷.,	3,938		2 000	0,044	2,632	5,365	4 731	1010	010,0	3,428	2,569	2,782	6.269	5 354	3 400	801 801	1,001	4,807	4, 314	3,765	3.320		3,000	3, 893		3.584		
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r, Sh	eed C	Sto.	d, Ha	weig,	ı, Sin	gome	er, B		2	2 2 2 2	20. C	Windsor	Baltic		117	00 M	Nor.	a. Po	T.eh		ы, 10 Со (11	l Exp	Tew			l00'Id	Was	n. Ke	1 1 1 1 1 1 1	10.10	Conn	fast (New,	on. N	No.	W		Ш, Ы	y, N	Wap	, Shel	. Ver	ereal	Was	on, F	Lak	Wash	Plan	
Mosher, Sherman	Platt Seed Co., New Haven	avage	mste	osens	cLean	Mont	IXeel		odolo	anara	dale,	ówn.	Wilson.			Clark, Woodbury	Barnes, Norwich	othar	rioos	20-10-1	n man	lslanc	ouno		, Se	Rose	ough	Ioh	יוטטיי	ommo	ept.,	age, J	orger	nderse	kiltor	rilton			nckne	ant,	aylor	učker	of	Ind.,	Vheat	issell.	son.	wick.	
Ľ	<i>v</i> i	H.	O. S. Olmsted, Hazardville.	Louis Rosensweig, So. Canterbury	J. B. McLean, Simsbury	Phelps Montgomery, Mt. Carme	Reuben Keeler, Bridgewater		Pani Nalahan Calabastan	11 · 11	Albert Hale, So. Glastonbi	F. B,	I. H. Wilson.				Ч. В.	C. B	W P Briggs Lebanon		. T	ode]	A. A. Young, Jewett Cir	T C Doof Hammeton	4 .)	Charles Rosebrooks, Storrs	C. E. Hough, Washington	Jesse St. John Kent	W F Cohulta Corbiol	2 f 4	u I I I I I	C. H. Sage, East Canaan.	C. E. Borger, New Preston	C. J. Anderson. New Prest	S stri	G A Skilton Watertown	Dobout Chilton Momin	5 TAC	G. E. Stickney, Newburyport	L. J. Grant, Wapping.	G. E. Taylor, Shelburne, Mass	F. E. Tucker, Vernon.	Office of Cereal Investigations.	Plant Ind., Wash., D.	E. M. Wheaton, Putnam	C. H. Bissell, Lakeville.	H. Johnson, Washington	Louis Zwick. Plantsville	
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422 CONNECTICUT EXPERIMENT STATION. BULLETIN 259.

Relative per cent. aoît corn per cent.	$\begin{array}{c} \begin{array}{c} & 1, \\ & 1, \\ & 1, \\ & 319 \\ & 987 \\ & 987 \\ & 987 \\ & 987 \\ & 1108 \\ & 1108 \\ & 1108 \\ & 1108 \\ & 1108 \\ & 1128 \\ & 1228 \\ & $
Relative dry matter in ear corn per cent.	888 97 97 97 97 97 97 97 97 97 97
Relative yield of grain per cent.	$\begin{array}{c} 106\\ 97\\ 98\\ 98\\ 966\\ 666\\ 666\\ 666\\ 666\\ 666\\ $
Yield of grain bushel per acre.	58.85 58.85
Relative yield of stover per cent.	100 1111111111111111111111111111111111
Yield of stover pounds per acre.	$\begin{array}{c} 4, 9, 225\\ 5, 7, 235\\ 5, 7, 235\\ 5, 7, 235\\ 5, 7, 235\\ 5, 7, 235\\ 5, 7, 235\\ 5, 7, 255\\ 5, 7$
.Vaturity.	Medium Late Late Late Barly Medium Late Medium Nedium Late Medium
Color.	White Yellow
No. years tested.	4∞−−∽∞∞∞∞∞−∞−∞∞
Gource of seed.	 Adolph Bahler, Ellington. N. H. Brewer, Hockanum. B. F. Page, Durham. S. M. Waldron, New Milford. C. L. Howes, Stamford. C. L. Howes, Stamford. C. L. Howes, Stamford. N. Y. Dept. of Plant Breeding, Cornell Univ., Ithaca, N. Y. Dibhle Seed Co., Honeoye Falls, New York. Dibble Seed Co., Bloomington, Ill. P. H. Woolford, Avon. Alex Smith, Clintonville. P. H. Woolford, Avon. Alex Smith, Clintonville. W. S. Hastings, Somers. W. S. Hasting, New York. W. S. Hasting, Sunderland, Mass. M. H. Williams, Nooktook. M. H. Williams, Nooktook. M. H. Williams, Sunderland, Mass. M. H. Strong, West Onto. W. H. Strong, Westiout. W. H. Strong, Westiout. W. H. Strong, Nucker, New York.
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CORN IN CONNECTICUT.

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TABLE VI SILAGE CORN GROWN AT STORRS.

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ent. atter	relative.	
Per cent. dry matter	per cent.	22222222222222222222222222222222222222
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	Color.	White Yellow Yel
.bet	No. years tes	429400-00200004-010-00440
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	. үзэілг У	Bahler's White Dent Brewer's Dent Century Dent Connecticut Dent. Cornell No. 11 Cornell No. 12 Corrail's Yellow Dent Dibble's Yellow Dent Dibble's Yellow Dent Eureka. Funk's 90 Day Funk's 90 Day Golden Dent. Golden Dent. Golden Dent. Golden Dent. Hastings Dent. Hastings Dent. Her's Yellow Dent. Barly Huron. Early Huron. Lakeside Dent.

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tdzisw .	Relative dry per cent.				95		101			63							72		
Actual dry matter per cent.		3.5	5.4	3.4	3.1	3.1	4.4	4.7		2.2	2.8	3.4	3.1	2.7	3.9	4.3	2.5	5.2	2.6
Relative green matter per cent.		68	76	96	82	50	101	72		40	73	68	50	43	66	57	52	73	62
Actual green matter tons per acre.		13.9	19.6	15.2	110 12.9	11.1	100 20.7	18.1	1	9.9 1	11.4	13.8	9.9	9.7	13.5	14.4	130 9.2	18.4	11.0
Per cent. dry matter	relative.						100	120 18.		143	114 11								125111
	per cent.	24.8	28.4	21.9	22.3	26.2	21.1	26.1		30.0	23.1	24.5	30.8	27.0	28.2	29.6	26.7	28.0	24.0
Color. Maturity.			ium		Late		Very late			Yellow Very early 50.0	Late	Medium							Yellow Medium
		Yellow	Yellow	Yellow Late	Yellow	Yellow Early	White	Yellow		Y ellow	Yellow	Yellow	Yellow Early	Yellow Early	Yellow Early	Yellow Early	Yellow Early	Yellow	Yellow
No. years tested.		e0		Ļ	T	-	67			71	ŗ	ñ	01	2	01		01		C1
Bource of seed.		R. C. Wilcox Sons, Guilford.	. West Branch Seed Growers Assn., Williamsport, Pa.	. Alex Smith, Clintonville	. S. L. Hollister, Washington.	Pryon DentJ. E. Daniels, Middletown	Wash., D. C.	U. S. Dept. of Agric. No. 125 Office of Cereal Investigations, Bureau Plant Ind. Wash., D. C.	U.S. Dept. of Agric. No. 133 Office of Cereal Investigations, Bureau Plant Ind.,	Wash, D. C. Wash, D. C. Wash, J. C. Trastinations Buran Plant Ind	Wash., D. C.	. Willis Frost, Bridgewater.	. Dept. Plant Breeding, Cornell Univ., Ithaca, N. J.	. [G. D. Hall, Wallingford.	. W. F. Herr, Brooklyn.	. L. C. Root & Son, Farmington.	N. S. Strong, North Plain	st	. IG. C. Woodford, Plainville.
	Variety	Sutton's Dent.	Sweepstakes	Sweepstakes	Sweepstakes	Tryon Dent.	che or again no. 1	ept. of Agric. No. 12	ept. of Agric. No. 13	ent of Aorie No 19	ar intrarten mide	Webber's Dent	Webber's Dent	White Cap	Vhite Cap.	White Cap	White Cap.	White Cap.	Woodford's Dent

TABLE VI SILAGE CORN GROWN AT STORRS-Concluded.

DESCRIPTION OF VARIETIES.

Here follow decriptions of all varieties and strains tested. All are not illustrated. In all cases, the cut is for the variety description immediately below it.

FLINT VARIETIES.

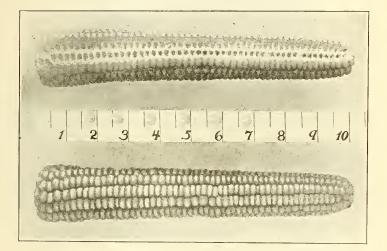


Figure 32.

Variety—Argentine Flint. Source—S. D. LaBarr, Greenwich.* Description—Stalk medium in height and size, with many suckers. Ear medium in length, large at butt and tapering. Kernels yellow, medium size, 12-14 rows. Matures well at Storrs. History—Obtained seed in 1914 from a farmer near Buffalo, N. Y.

*All localities are in Connecticut unless otherwise noted.

Variety-Avery's White Flint.

Source-B. T. Avery, Ledyard.

Description-Stalk short, medium in diameter with many suckers. Ear long and cylindrical. Kernels white, medium size, 8 rows. Matures well at Storrs.

History-Unknown.

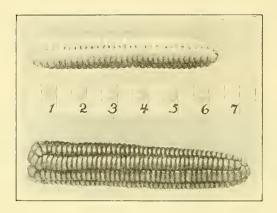


Figure 33.

Varietu-Averill's Yellow Flint.

Source—Albert Averill, Pomfret Landing.

Description-Stalk short and small, with many suckers. Ear medium in length, small in diameter, small shank, slightly tapering. Kernels deep yellow, S rows. Matures very well at Storrs. *History*—Seed obtained from Vermont about 40 years ago and has been

grown on same farm since then.

Variety—Barnes White Flint. Source—F. A. Barnes, Preston City. Description—Stalk medium in height and diameter, with many suckers. Ear long and cylindrical. Kernels white, medium in size, 8 rows. Matures well at Storrs.

History-Unknown.

Variety—Beebe's Yellow Flint. Source—C. M. Beebe, Uncasville.

Description-Stalk medium in height and diameter, with many suckers. Ears medium in length, large in diameter. Kernels yellow, large, S rows. Matures very well at Storrs. *History*—Unknown.

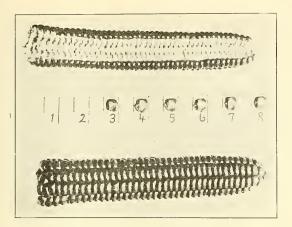


Figure 34.

Variety—Brewer's Flint. Source—N. H. Brewer, Hockanum.

Description—Stalk medium in height, with many suckers. Kernels yel-low, 8 rows. Matures very well at Storrs. History—Unknown.

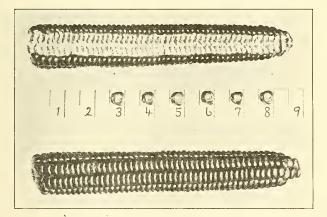


Figure 35.

Variety—Burwell's Flint. Source—E. E. Burwell, New Haven. Description—Stalk medium in height and diameter, with many suckers. Ear medium in length and diameter. Kernels yellow, medium size, 8 rows. Matures well at Storrs.

History-A selection of Canada Yellow Flint. Grown 25 years by Mr. Burwell.

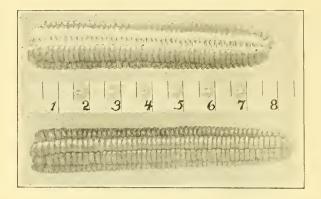


Figure 36.

Variety—Canada Yellow Flint. Source—Thomas Griswold and Sons, South Wethersfield.

Description—Stalk medium in height, large in diameter, with few suckers. Ear medium in length, cylindrical. Kernels yellow, medium size, 8 rows. Matures well at Storrs.

History—Grown for at least 12 years.

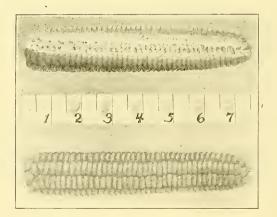


Figure 37.

Variety—Canada Yellow Flint. Source—Jason Lathrop, Plainfield. Description—Stalk short, medium in size and number of suckers. Ear medium in length and diameter, cylindrical, small shank. Kernels yellow, medium size, 8 rows. Matures very well at Storrs. History—Grown for 50 years on same farm.

FLINT VARIETIES—Continued.

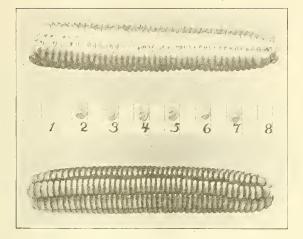


Figure 38.

Variety—Chace's Yellow Flint. Source—M. W. Chace, Pomfret Landing.

Description-Stalk short, medium in diameter, with many suckers. Ear medium in length, large, cylindrical. Kernels yellow, medium size, 8 rows. Matures very well at Storrs.

History-Brought into vicinity of Pomfret from Rhode Island in 1841. Originally called "Hawkins Corn."

Variety—Connecticut Yellow Flint. Source—O. S. Olmsted, Hazardville. Description—Stalk short and small, with many suckers. Ear medium in length and diameter, well capped. Kernels yellow, large and close together, 8 rows. Matures very well at Storrs.

History-Seed from Canada 60 years ago. Mr. Olmsted has crossed it twice with other yellow flints since then. Seed selected carefully.

Variety—Canada Yellow Flint. Source—L. S. Abbe, Hazardville.

Description-Stalk short and small, suckers medium in number. Ear short, medium in diameter, tapering. Kernels yellow, medium size, 8 rows. Matures very well at Storrs.

History-Grown for 50 years on same farm without change.

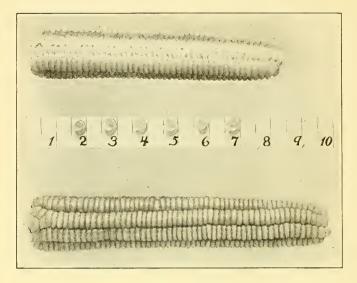


Figure 39.

Variety—Crowell's Prolific.

Source-David Crowell, Middletown.

Description-Stalk tall and large. Ear long, cylindrical. Kernels yellow, 8 rows. Matures fairly well at Storrs.

History—Grown for 100 years on the same farm, originally brought from Massachusetts.

Variety—Double Capped White Flint.

Source-W. A. Thrall, Windsor.

Description—Stalk very short and very small, with many suckers. Ear very short and very small, cylindrical, very well capped at tip and butt, shank very small. Kernels white, of medium depth and size, 8 rows. Matures very well at Storrs.

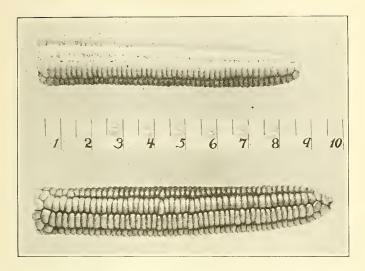
History-Unknown.

Variety—Fairview Flint. Source—Harrison Hamilton, Ellington.

Description—Stalk short and small, with few suckers. Ear medium in length and size. Kernels yellow, 8 rows. Matures very well at Storrs. *History*—Unknown.

Variety—Fenn's 12 Row. Source—R. M. Fenn, Middlebury.

Description-Stalk medium in height, small in diameter, with few suckers. Ear medium in length, large in diameter. Kernels dark yellow, medium depth, small, 12 rows. Matures at Storrs. History—A selection from Basham's Longfellow.



FLINT VARIETIES—Continued.

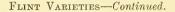
Figure 40.

Variety-Davis Yellow Flint.

Source—P. E. Davis, Granby, Mass. Description—Stalk medium in height and diameter, with few suckers. Ear medium in length. Kernels yellow, 8 rows. Matures very well at Storrs. *History*—Originated from a cross of a flint of the Longfellow type with a

small cob, amber colored variety. Has existed as a distinct variety about 38 years.

Variety—Frost's Yellow Flint. Source—Charles Frost, Sherman. Description—Stalk medium in height and diameter, with few suckers. Ear medium in length, small in diameter. Kernels variable in color, largely yellow, medium depth and size. Matures well at Storrs. History—Said to have originated as a cross of different varieties. Obtained from W. H. Taber of Quaker Hill, Pawling, New York over 40 years ago.



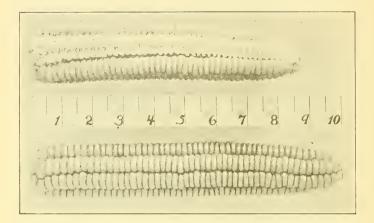


Figure 41.

Variety—Gold Nugget. Source—Mary Bacon, Kent. Description—Stalk medium in height, large, with very few suckers. Ear medium in length, very large in diameter, rather coarse. Kernels light yel-low, medium depth, very large, 8 rows. Matures fairly well at Storrs. History—Hall's Golden Nugget from Joseph Harris Seed Co., Coldwater, New York, grown about fourteen years in Kent. Originated by Levi P. Hall shout 1573

about 1873.

Variety-Gold Nugget. Source—A. L. Purdy, Port Chester, N. Y. Description—See Bacon's Gold Nugget.

Variety—Gold Nugget. Source—J. B. Stratton, Watertown. Description—See Bacon's Gold Nugget. Seed from same source.

Variety-Hathaway's Yellow Flint. Source—Auburn, Maine. • Description—Stalk short and small, with few suckers. Kernels yellow, 8 rows. Matures very well at Storrs.

History-Unknown.

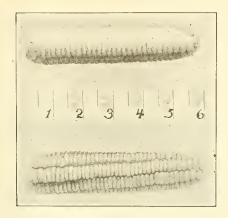


Figure 42.

Variety—Griswold's 90 Day. Source—Thomas Griswold and Sons, Wethersfield. Description—Stalk short and small, with few suckers. Ear short and small, cylindrical, well capped, small shank. Kernels yellow, 8 rows. Matures very well at Storrs.

History-Known to have been grown in the vicinity for at least 12 years.

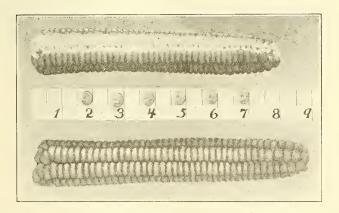


Figure 43.

Variety—Hauschild's Yellow Flint. Source—Julius Hauschild, Storrs.

Description—Stalk medium in height and diameter, with many suckers. Ear medium in length. Kernels variable in color, mostly yellow, 8 rows. Matures well at Storrs.

History-Has been mixed with other strains of different color.

Variety—Haves' Canada Flint.

Source-M. C. Hayes, Granby.

Description-Stalk medium height with many suckers. Kernels yellow, 8 rows. Matures at Storrs.

History-Unknown.

Variety—Healey's Yellow Flint.

Source-L. H. Healey, Woodstock.

Description-Stalk short and small, with few suckers. Ear medium in length and diameter. Kernels yellow, medium depth and size, 8 rows. Matures very well at Storrs.

History—The result of a cross between Sheffield flint from Massachusetts and Early Canada from New Hampshire. Grown for ten years.

Variety-Isben's Yellow Flint.

Source—J. C. Isben, North Haven. Description—Stalk medium in height and diameter with few suckers. Ear medium in length, large in diameter. Kernels yellow, medium depth and size, 8 rows. Matures fairly well at Storrs.

History-Seed obtained from F. S. Platt Seed Co. about 14 years ago.

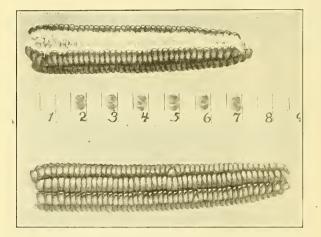


Figure 44.

Variety—King Philip. Source—W. E. Price, Warehouse Point.

Description-Stalk medium in height and diameter with few suckers. Ear rather short, medium diameter, cylindrical, well capped. Kernels red, of medium depth and size, 8 rows. Matures very well at Storrs. *History*—Brought from Rhode Island about 35 years ago.

Variety—Longfellow.

Source—John Basham, Middlebury.

Description—Stalk medium in height and diameter and number of suckers. Ear long and small in diameter. Kernels dark yellow, medium depth and size, 8 rows. Matures at Storrs.

History—Unknown.

Variety—Longfellow. Source—P. J. Behan, Roxbury. Description—Stalk medium in height and diameter, with few suckers. Ear long, small in diameter. Kernels yellow, shallow, medium size, 8 rows. Matures well at Storrs.

History-Mr. Behan selects his seed from stalks with two ears.

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Figure 45.

Variety-Longfellow.

Source-N. G. Gelston, Sherman.

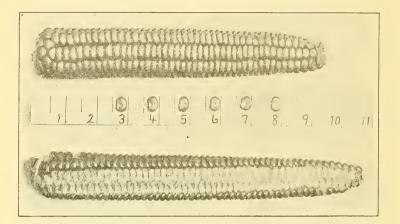
Description-Stalk of medium height, rather small in diameter, with few suckers. Ear long, small in diameter. Kernels yellow, shallow, medium size, 8 rows. Matures well at Storrs.

History—Mr. Gelston has grown this strain for 10–15 years. Uncertain as to source. Selects his seed at husking.

Variety—Longfellow.

Source—F. S. Platt Seed Co., New Haven. Description—Stalk medium in height. Ear long. Kernels yellow, 8 rows. Matures well at Storrs.

History-Seed grown in Connecticut.



FLINT VARIETIES—Continued.

Figure 46.

Variety—Longfellow. Source—Reuben Keeler, Bridgewater. Description—Stalk medium in height and diameter with few suckers. Ear long, small in diameter. Kernels dark yellow, shallow, medium size, 8 rows. Matures well at Storrs.

History—Is mixed with Pied Flint, a variety of similar type.

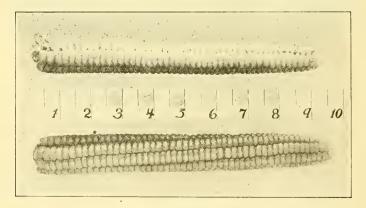


Figure 47.

Variety—Longfellow. Source—N. R. Mosher, Sherman. Description—See Keeler's Longfellow. History—Unknown.

Variety—Longfellow. Source—C. H. Savage, Storrs. Description—Stalk medium in height. Kernels yellow, 8 rows. Matures well at Storrs. History—Unknown.

Variety—Mammoth White Flint. Source—O. S. Olmsted, Hazardville. Description—Stalk tall and large, with few suckers. Ear long and large in diameter. Kernels white, 8 rows. Matures at Storrs. History—Unknown.

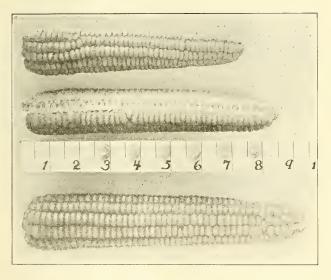


Figure 48.

Variety—Mammoth Yellow Flint. Source—Louis Rosensweig, South Canterbury. Description—Stalk tall. Ear long, small shank, slightly tapering. Kernels light yellow, 8–12 rows. Matures at Storrs. History—Unknown. 440

FLINT VARIETIES—Continued.

Variety—McLean's Flint. Source—J. B. McLean, Simsbury.

Description-Stalk medium in height and diameter, with many suckers.

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Variety—Montgomery's White Flint.

Source—Phelps Montgomery, Mt. Carmel.

Description-Stalk medium in height, many suckers. Ear medium in length. Kernels white, 8 rows. Matures at Storrs. History—Seed purchased from Peter Henderson Seed Co., grown several

vears in Connecticut.

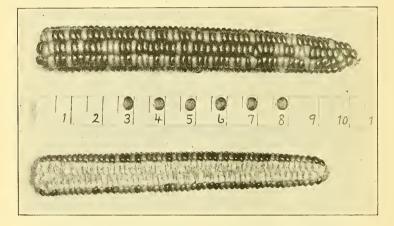


Figure 49.

Variety—Pied Flint.

Source-Reuben Keeler, Bridgewater.

Description-Stalk medium in height and diameter, with few suckers. Ear long, rather small in diameter, cylindrical. Kernels vary in color, white or yellow, rather shallow, of medium size, S rows. Matures fairly well at Storrs. *History*—This variety is the result of crossing yellow and white flints. Has

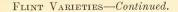
been grown for sixty years. Seed obtained from Lyman Smith. Selects seed at husking.

Variety—Red Flint.

Source—Albert Hale, South Coventry.

Description-Stalk short. Ear medium in length. Kernels red, S rows. Matures very well at Storrs.

History-Unknown.



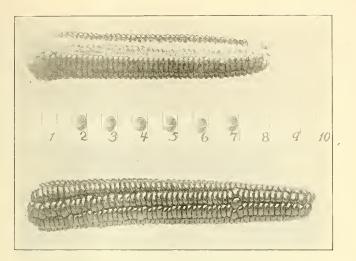


Figure 50.

Variety—Red Flint. Source—Benjamin Neleber, Colchester. Description—Stalk medium in height and diameter, with few suckers. Ears medium in length and diameter. Vary in color, red or yellow and white. Matures well at Storrs.

History—Unknown.

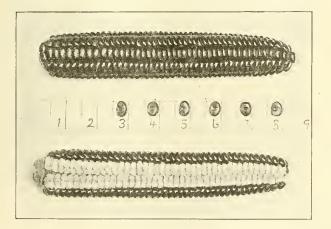


Figure 51.

Variety—Red Flint. Source—S. F. Brown, Windsor. Description—Stalk medium in height, diameter and number of suckers. Ear medium in length. Kernels red, medium size and depth, 8 rows. Matures very well at Storrs. History—Is a strain of King Philip known as Hill's Red Flint.

Variety-Red Glaze.

Source-J. H. Wilson, Baltic.

Description-Stalk medium in height, large in diameter, with few suckers. Ear medium in length, slightly tapering, well capped. Kernels white except those at tip which are pinkish, 8 rows. Matures very well at Storrs.

History-Was grown in South Swansea, Mass., for many years, where it matured in about 105 days.

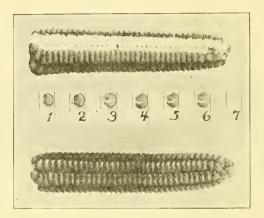


Figure 52.

Variety—Rhode Island Premium. Source—W. J. Clark, Woodbury.

Description-Stalk short and very small in diameter, with many suckers. Ear short and small, cylindrical, well capped. Kernels red, medium in depth and size, 8 rows. Matures very well at Storrs.

History—Has been grown on same farm for thirty years. Mr. Clark ob-tained seed from R. W. Martin of Woodbury. Selected seed for past seven years from two and three-eared stalks.

Variety—Rhode Island White Flint.

Source—E. P. Barnes, Norwich. Description—Stalk medium in height and diameter, with many suckers. Ear medium in length and diameter, slightly tapering. Kernels white, medium in depth, rather large, 8 rows. Matures at Storrs.

History-Grown forty years on the same farm. Originally from Rhode Island.

Variety—Rhode Island White Flint.

Source—R. C. Botham, Pomfret.

Description-Stalk short and small in diameter, with many suckers. Ear short, medium in diameter and well capped. Kernels white, large, 8 rows Matures well at Storrs.

History—Unknown.

Variety—Rhode Island White Flint.

Source—W. P. Briggs, Lebanon. Description—Stalk short and small in diameter, with many suckers. Ear short, medium in diameter, cylindrical, well capped. Kernels white, shallow, large, 8 rows. Matures well at Storrs. History—Mr. Briggs has grown this variety for 30 years. Obtained his seed from Robert Carpenter, also of Lebanon.

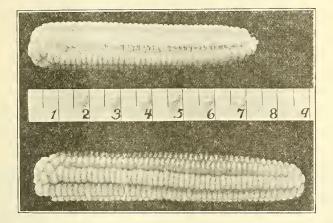


Figure 53.

Variety-Rhode Island White Flint.

Source-F. W. Newton, South Canterbury.

Description—Stalk medium in height. Ear medium in length, slightly tapering, long type of Rhode Island White. Kernels white, large, 8 rows. Matures at Storrs.

History-Unknown.

Variety—Rhode Island White Flint. Source—A. A. Young, Jewett City. Description—See R. I. Exper. Station's White Flint History—Originally from Rhode Island Experiment Station.

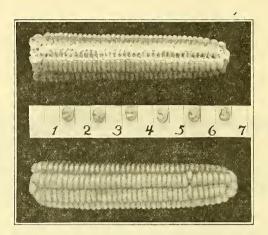


Figure 54.

Variety-Rhode Island White Flint. Source-Rhode Island Experiment Station, Kingston, R. I.

Description—Stalk medium in height, small in diameter, with many suckers. Ear short, medium in diameter, well capped. Kernels white, medium depth and size, 8 rows. Matures well at Storrs. *History*—Grown on the Experiment Station farm for at least 10 years. Originally from F. E. Marchant in the same locality who has raised this corn for a long period of time.

Variety—Root's Yellow Flint.

Source-L. C. Root, Farmington.

Description-Ear short and very small. Kernels yellow, shallow, medium in size, 8 rows. Matures well at Storrs.

History-Unknown.

Variety—Sanford White Flint.

Source-C. E. Hough, Washington.

Description-See St. John's Sanford White Flint.

History-Mr. Hough obtained his seed from Albert Carlson of New Milford, who in turn obtained his from Kent.

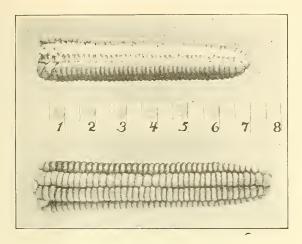


Figure 55.

Variety—Rosebrooks' Flint. Source—Charles Rosebrooks, Storrs.

Description—Stalk short. Ear medium length. Kernels yellow, 8 rows. Matures well at Storrs.

History—Grown for nearly fifty years on same farm.

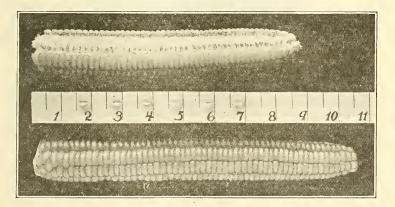


Figure 56.

Variety—Sanford White Flint.

Source-Jesse St. John, Kent.

Description-Stalk medium in height and diameter, with few suckers. Ear medium in length and diameter, cylindrical. Kernels white, of medium depth and size, 8 rows. Matures well at Storrs.

History-Grown for 30 years or more on the same farm. Original source unknown.

BULLETIN 259.

FLINT VARIETIES—Continued.

Variety—Schultz's White Flint. Source-W. F. Schultz, Saybrook. Description-Ear of medium length and diameter. Kernels white, of medium depth and size, 8 rows. Matures well at Storrs. History—Unknown.

Variety—Sheffield Yellow Flint. Source—Farm Department, Connecticut Agricultural College, Storrs. Description-Stalk medium in height. Ear medium in length. Kernels yellow, 8 rows. Matures well at Storrs.

History—Unknown.

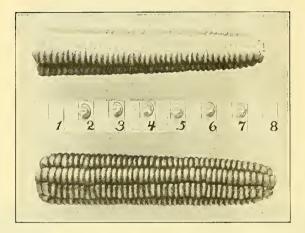


Figure 57.

Variety-Sheffield Yellow Flint. Source-C. H. Sage, New Canaan.

Description-Stalk medium in height, small in diameter, with few suckers. Ear short and of medium diameter. Kernels yellow, S rows. Matures very well at Storrs.

History-Mr. Sage has grown this strain for 12-15 years, obtaining his original seed from James Cahill, Sheffield, Mass., and two years ago from Peck Brothers, Sheffield, Mass.

Variety—Sheffield Yellow Flint. Source—C. E. Borger, New Preston. Description—See Healey's Yellow Flint. History-Obtained seed from Massachusetts in 1909.

Variety-Silver Triumph. Source-C. J. Anderson, New Preston.

Description-Stalk medium in height, large in diameter, with few suckers. Ear medium in length, large in diameter; kernels white, deep, large, S rows. Matures fairly well at Storrs.

History—Mr. Anderson obtained his seed in 1920 from A. A. Biery Seed Co., Clarinda, Iowa. Matured in 100 days in 1920.

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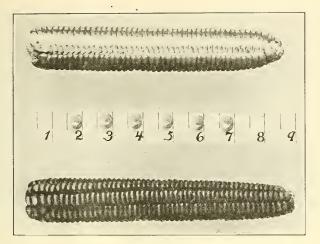


Figure 58.

Variety-Skilton's Yellow Flint.

Source-Julius Skilton, Watertown.

Description-Stalk of medium height and diameter, with few suckers. Ear medium in length, small in diameter, tapers very little. Kernels dark yellow, shallow, of medium size, 8 rows. Matures well at Storrs. History—Has been grown for fifty-three years on the same farm. Seed

selected very carefully at husking time. Originally from New York.

Variety-Smut Nose Flint.

Source-G. A. Skilton, Watertown.

Description-Stalk medium in height, small in diameter. Ear medium in length and diameter. Kernels white, except those at tip, which are pinkish, of medium depth and size, 8 rows. Matures well at Storrs.

History—Grown for 40 years on the same farm. Originally from Robert Skilton.

Variety-Stickney's Yellow Flint.

Source-G. E. Stickney, Newburyport, Mass.

Description—Stalk of medium height and diameter, with few suckers. Ear medium in length and diameter, cylindrical. Kernels yellow, 8 rows. Matures well at Storrs.

History—This variety is the result of crossing and careful selection of the hybrid for cylindrical well-capped ears.

Variety-Stickney's Yellow Flint.

Source-L. J. Grant, Wapping.

Description-Stalk medium in height and diameter, with few suckers. Ear medium in length, small in diameter. Kernels yellow, shallow, of medium size, 8 rows. Matures well at Storrs.

History-See G. E. Stickney's Yellow Flint.

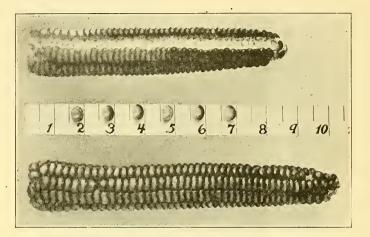


Figure 59.

Variety—Smut Nose Flint. Source—Robert Skilton, Morris. Description—See G. A. Skilton's Smut Nose White Flint.

History-Mr. Skilton and his father have grown this variety for 62 years on the same farm. Select seed at husking.

Variety-Taylor's Yellow Flint.

Source-G. E. Taylor, Shelburne, Mass.

Description-Stalk medium in height, diameter and number of suckers. Ear medium in length. Kernels dark yellow, 8 rows. Matures very well at Storrs.

History—Brought from South Hadley in 1814 and raised on the same farm for 110 years.

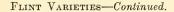
Variety—U. S. Department of Agriculture No. 193.
Source—Office of Cereal Investigations, B. of P. I., Washington, D. C. Description—Stalk tall and large with few suckers. Ear medium in length, very large in diameter, resembling "Gold Nugget." Kernels light yellow, deep, very large, 8 rows. Does not mature well at Storrs.
History—A selection from Hall's Golden Nugget secured from Jacob Kotzenstein of Hamburg, New Jersey, in 1914. Bred by the U. S. Dept. of Agriculture from 1915 to 1921 at Rhinebeck, New York. See Bacon's Gold Nugget.

Variety-Wheaton's 12 Row.

Source-E. M. Wheaton, Putnam.

Description-Stalk medium in height, small in diameter, with few suckers. Ear medium in length, large in diameter. Kernels dark yellow, shallow, small, 12 rows. Matures very well at Storrs. *History*—Result of crossing 12 rowed dent with 8 rowed flint. Grown for

15 years.



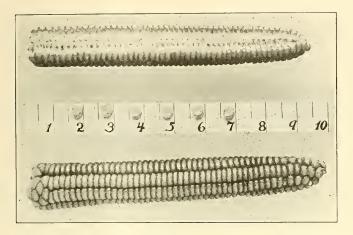


Figure 60.

Variety—Tucker's Yellow Flint. Source—F. E. Tucker, Vernon. Description—Stalk medium in height and diameter, with few suckers. Ear

History—This variety is the result of crossing Canada Yellow Flint with Holden's about thirty years ago; since then seed has been selected very carefully in the field.

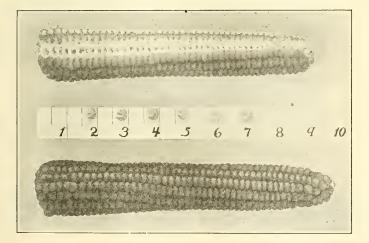


Figure 61.

Variety-Yellow Dutton. Source-C. H. Bissell, Lakeville.

Description—Stalk of medium height and small in diameter, with a medium number of suckers. Ears medium in length, large at butts. Kernels light yellow, shallow, small, 12 rows. Matures well at Storrs. *History*—Grown for fifty years by Mr. Bissell.

FLINT VARIETIES—Concluded.

Variety—Yellow Dutton. Source—H. Johnson, Washington. Description—Stalk of medium height, small in diameter. Ear medium in length, small in diameter. Kernels light yellow, of medium depth, small, 12 rows.

History-Unknown.

Variety—Zwick's Yellow Flint. Source—Louis Zwick, Plantsville. Description—Stalk of medium height and diameter, with few suckers. Ear medium in length and diameter. Kernels light yellow, of medium depth and size, 8 rows. Matures fairly well at Storrs.

DENT VARIETIES.

Variety-Bahler's White Dent.

Source—Adolph Bahler, Ellington. Description—Stalk medium in height and small in diameter. Ear rather short and thick. Kernels white, deep, medium in size, 16-20 rows. Matures very well at Storrs.

History-Originally from Illinois. Grown in Ellington for 20 years.

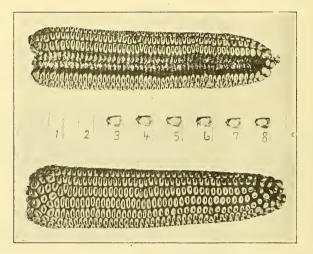


Figure 62.

variety—Brewer's Dent. Source—N. H. Brewer, Hockanum. Description—Stalk tall and large. Ear medium in length and thickness. Kernels yellow, deep, rather small, 16–20 rows. Does not mature at Storrs. History—Result of several years' selection out of Reid's Yellow Dent, by N. H. Brewer.

Variety-Brewer's Dent. Source-B. F. Page, Durham.

Description-Stalk medium in height and diameter. Ear short and thick. Kernels yellow, 16–22 rows. Does not mature at Storrs. *History*—From N. H. Brewer.

DENT VARIETIES-Continued.

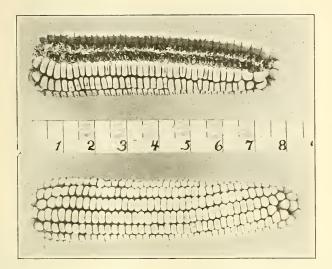


Figure 63.

Variety—Century Dent. Source—S. M. Waldron, New Milford.

Description—Stalk medium in height and diameter. Ear medium in length and diameter. Kernels yellow, deep, medium in size, 14–18 rows. Matures well at Storrs.

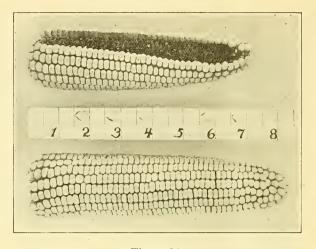
History-Bought in Buffalo, N. Y., about 1902 from a silo company. Supposed to be a pedigreed corn.

Variety—Clark's Early Wonder. Source—Harris Seed Company, Coldwater, N. Y. Description—Stalk medium in height and diameter. Ear medium in length and diameter. Kernels yellow, deep, medium in size, moderately to roughly indented, 14–18 rows.

History-Obtained seed about ten years ago from Clark & Son, Wayland, Michigan.

Variety—Dibble's Yellow Dent. Source—Dibble Seed Company, Honeoye Falls, N. Y. Description—Stalk medium in height and diameter. Ear medium in length and diameter. Kernels yellow, 12-16 rows. Does not mature well at Storrs.

History—A strain of Learning selected and grown by the Dibble Seed Company.



DENT VARIETIES-Continued.

Figure 64.

Variety—Connecticut Dent.

Source-C. L. Howes, Stamford.

Description—Stalk medium in height and diameter. Ear medium in length and diameter. Kernels yellow, 16–18 rows. Does not mature well at Storrs. *History*—From Dibble's Early Yellow Dent. Bred by "ear to row" method by Mr. Howe.

Variety—Cornell No. 11. Source—Dept. of Plant Breeding, Cornell University, Ithaca, N. Y. Description—Stalk short and slender. Ear short and medium in diameter. Kernels yellow, mediumly deep, small, 12–20 rows. Matures very well at Storrs.

History-Isolated from Pride of the North by eight years of ear-to-row selection in Cayuga Co., New York.

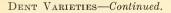
Variety—Cornell No. 12.

Source—Dept. Plant Breeding, Cornell University, Ithaca, N. Y. Description—Stalk short and slender. Ear short and large in diameter. Kernels yellow, deep, medium in size, 18–20 rows. Matures well at Storrs. History—Isolated from Funk's 90 Day by five years of ear-to-row selection

in Westchester Co., New York.

Variety—Curtin's Yellow Dent. Source—E. Curtin, East Windsor. Description—Stalk tall, medium in diameter. Ear long and tapering. Kernels yellow. Does not mature at Storrs.

History—Unknown.



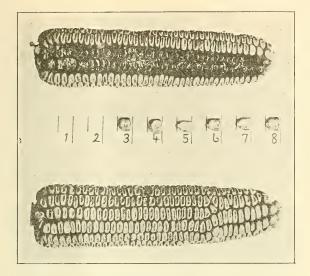


Figure 65.

Variety—Dowd Dent. Source—R. C. Wilcox & Sons, Guilford. Description—Stalk medium in height and diameter. Ear long. Kernels light yellow, 10-14 rows. Matures fairly well at Storrs. History—Unknown.

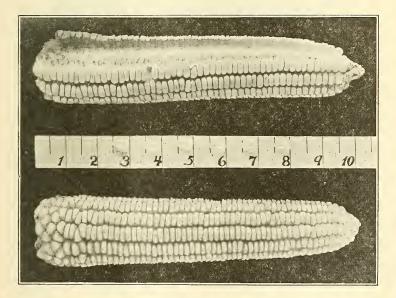


Figure 66. Variety—Eureka. Source—Ross Brothers Seed Company, Worcester, Mass. Description—Stalk very tall and very large. Ear long and large. Kernels white, mediumly deep and very broad. Never matures at Storrs. History—Grown on James River in Virginia.

Variety-Yellow Eureka.

Source-Peter Henderson & Company, New York City.

Description—Tall, large silage variety. *History*—Grown by I. S. Long, Richland, Lebanan County, Penn., about 20 years ago.

Variety—Funk's 90 Day.

Source—Funk Bros. Seed Company, Bloomington, Ill.

Description-Stalk tall and quite large. Kernels yellow, 14-18 rows. Does not mature well at Storrs.

History—Originated by E. D. Funk in 1892 from a selection following a cross of a small eared early corn and a late variety.

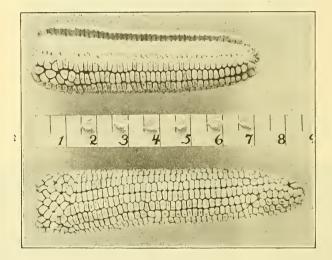


Figure 67.

Variety—Gelston's Ensilage. Source—W. I. Gelston, East Haddam. Description—Stalk tall and large. Ear long, large and slightly tapering Kernels yellow, roughly dented. Does not mature at Storrs. History—The result of crossing Early Mastodon on Klondyke.

Variety—Golden Dent. Source—Alex Smith, Clintonville.

Description—Stalk medium in height, small. Ear short, medium in diame-ter. Kernels reddish yellow, 12-14 rows. Matures at Storrs. *History*—Grown in Clintonville for several years.

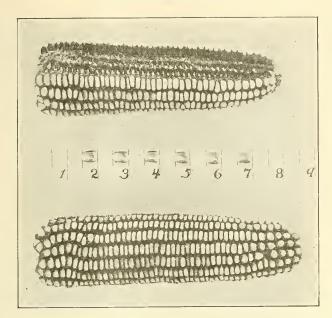


Figure 68.

Variety—Golden Dent. Source—P. H. Woodford, Avon. Description—Stalk medium in height and diameter. Ear medium in length, large. Kernels reddish yellow, deep, medium size, 14-16 rows. Matures at Storrs.

History-Grown for 25 years on Mr. Woodford's farm.

Variety-Hasting's Yellow Dent.

Source-W. S. Hastings, Somers.

Description—Stalk short and small. Ear short and small. Kernels deep yellow, mediumly deep, small, 14-16 rows. Matures very well at Storrs. *History*—Mr. Hastings had grown it for several years. He obtained the seed from his brothers in Shelburne, Mass. Brought from West originally.

Variety—Hazenhurst White Cap. Source—E. Hazen, Haddam.

Description-Stalk tall and large. Ear medium in length, large in diameter. Kernels yellow with white cap, deep, large, 12-16 rows. Requires a favorable season to mature at Storrs.

History-Unknown.

Variety—Herr's Yellow Dent. Source—W. F. Herr, Brooklyn.

Description-Stalk medium in height, small, ear medium in length, large in diameter. Kernels yellow, medium in depth and size, 14 rows. Matures at Storrs.

BULLETIN 259.

DENT VARIETIES—Continued.

Variety—Hickory King.

Source—R. C. Wilcox & Sons, Guilford. *Description*—Stalk medium in height, large. Ear medium in length, small in diameter. Kernels yellow, shallow, very large, 8 rows. Matures at Storrs. *History*—Unknown.

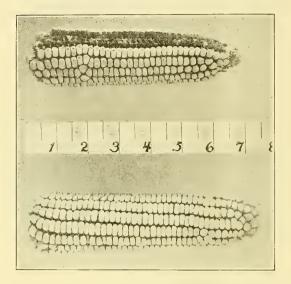


Figure 69.

Variety—Early Huron. Source—Joseph Harris Company, Coldwater, N. Y.

Description-Stalk short and small. Ear medium in length. Kernels deep yellow, 14-16 rows. Matures well at Storrs. History—Grown in western New York near Lake Ontario for many years.

Variety—Holcomb's Dent. Source—P. Holcomb, East Granby.

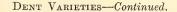
Description—Stalk medium in hight. Kernels yellow, slender 14-18 rows, widely spaced. Matures at Storrs.

History-Grown and seed selected for 20 years by Mr. Holcomb.

Variety—Johnson's Dent.

Source-J. W. Moss, West Cheshire.

Description-Stalk medium in height and large in diameter. Ear long and large. Kernels light yellow, deep, medium in size, 14-16 rows. Does not mature very well at Storrs. History—Unknown.



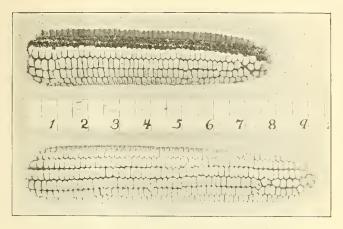


Figure 70.

Variety—Early Huron. Source—M. H. Williams, Sunderland, Mass. Description—Stalk medium in height and diameter. Ear medium in length. Kernels deep yellow, 14-16 rows. Matures at Storrs. History—Result of crossing Early Huron and Pride of North. Selected for several years since.

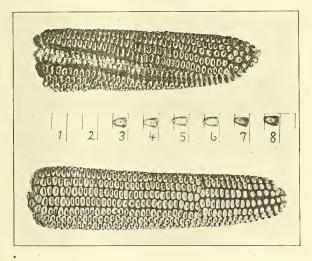


Figure 71.

Variety—Klondyke. Source—George Hale, Westport. Description—Stalk tall and large. Ear long and large. Kernels light yellow, 14-16 rows. Does not mature at Storrs. History—Unknown.

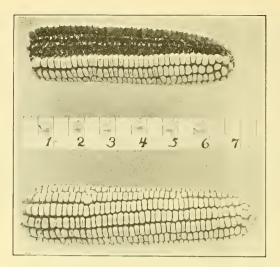


Figure 72.

Variety—Lakeside Dent. Source—Nathaniel Jones, South Windsor.

Description-Stalk medium in height and diameter. Ear medium in length, large at butt and tapering. Kernels yellow, deep, medium in size, 14-16 rows. Usually matures fairly well at Storrs.

History—Mr. Jones obtained seed from W. F. Cobb & Company, Frank-lin, Mass. Originally from A. A. Chatfield of Fulton County, Ohio.

Variety—Lakeside Dent. Source—S. H. Peckham. Description—Stalk shorter and smaller than preceding variety. Ears short, medium in diameter and tapering. Kernels deep yellow, medium in depth and size, 12-18 rows. Matures at Storrs. *History*—Mr. Peckham obtained his seed from Nathaniel Jones of South Windsor in 1917 and had selected his own seed since.

Variety—Lancaster Sure Crop. Source—Lancaster County, Penn.

Description-Stalk medium in length and diameter. Ears long and slender, tapering. Kernels deep yellow, smooth and broad, 16-20 rows. History—Originated by Mr. Isaac E. Hershey of Lancaster County,

Penna.

Variety—Leaming.

Source-Dibble Seed Company, Honeoye Falls, N. Y.

Description-Stalk of medium height. Kernels yellow, 14-20 rows. Not tested for grain at Storrs.

History—Seed grown at Honeoye Falls, N. Y.

CORN IN CONNECTICUT.

DENT VARIETIES—Continued.

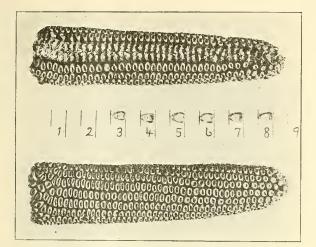


Figure 73

Variety—Leaming. Source—Heman Beardsley, Roxbury.

Description—Stalk medium in height and diameter. Ear medium in length and diameter, tapering. Kernels dark yellow, medium in depth and size, 16-22 rows. Matures at Storrs.

History—Mr. Beardsley obtained seed from Ed. Seeley of Roxbury about 1905 and since has acclimated it to his conditions. Selects his seed at husking or in the crib.

Variety-Learning. Source-Peter Henderson Seed Company, New York City. Description-Stalk medium in height. Kernels yellow, 14-22 rows. Not tested for grain at Storrs. History-Unknown. Variety—Learning. Source—Farm Department, Connecticut Agricultural College, Storrs. Description—Stalk medium in height. Kernels yellow, 14-18 rows. Never tested for grain at Storrs.

History-Unknown.

Variety-Learning. Source-Hurley Grant Hardware Company, Willimantic. Description-Stalk tall and large. Kernels yellow. Never tested for grain at Storrs.

History-Local company obtained seed from Dickinson Seed Company, N. Y. City.

Variety-Learning. Source-Thomas Griswold, So. Wethersfield.

Description-Stalk medium in height and diameter. Not tested for grain at Storrs.

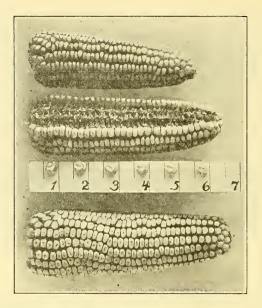


Figure 74.

Variety-Learning.

Source—L. P. Drake, Harwinton. Description—Stalk short and small. Ear short and small. Kernels yellow, narrow, very little denting, 12-16 rows. Matures very well at Storrs. *History*—Originally from West. Mr. Drake obtained his seed from Chas. Alford of Harwinton about 1900.

Variety—Leaming. Source—Harrison Hamilton, Ellington.

Description-Stalk medium in height and diameter, Ear medium in length, small. Kernels yellow, medium in depth and size, 12-16 rows. Matures well at Storrs.

History-Mr. Hamilton has grown this variety for several years.

Variety—Leaming. Source—Ed. Harris, Middletown.

Description—Stalk short and small. Ear medium in length, tapering. Kernels yellow. Not tested for grain at Storrs.

History-Unknown.

Variety—Leaming. Source—W. A. Lanterman, Fairfield.

Description—Stalk medium in height, large in diameter. Ear medium in length, small in diameter. Kernels deep yellow, shallow, medium in size, 12-14 rows. Matures well at Storrs.

History—Mr. Lanterman has grown this variety for several years and has matured it nicely, even in years of very early frosts.

Variety-Learning.

Source—Feed Store, Norwich.

Description-Stalk tall and large. Kernels yellow. A very late strain of Leaming. Does not mature at Storrs. History—Unknown.

Variety—Learning. Source—F. S. Prince, Xenia, Ohio. Description—Stalk medium in height and large in diameter. Ear long and large. Kernels light yellow, deep, medium in size, 16-20 rows. Does not mature at Storrs.

History—This is a selected strain of the original Ohio Learning variety.

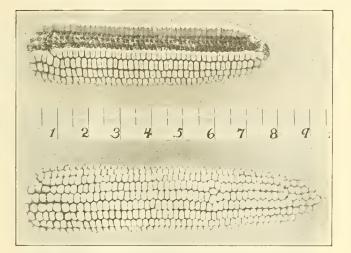


Figure 75.

Variety—Leaming. Source—W. H. Strong, Avon.

Description-Stalk medium in height, small in diameter. Ear short and small. Kernels yellow, medium in depth and size, 14-16 rows. Matures at Storrs.

History-Mr. Strong obtained seed from Cadwell and Jones of Hartford in 1912.

Variety—Leaming.

Source-Vinehill Farm, Elmwood.

Description—Stalk medium in height and diameter. Ear medium in length, large. Kernels yellow, medium in depth and size, 12-16 rows. Matures at Storrs.

History—Western Learning grown about 30 years in Connecticut, carefully selected for ear type from individual plants in the field.

Variety—Leaming.

Source-W. J. Wells, So. Deerfield, Mass.

Description-Stalk medium in height and diameter. Ear rather short. Kernels yellow, 12-16 rows. Matures well at Storrs.

Variety-Long Island Dent.

Source-C. E. Salmon, Brooklyn.

Description-Stalk short and small in diameter. Ear medium in length, small. Kernels reddish yellow, shallow, large, 8 rows. Only slightly dented and looks like a flint. Matures well at Storrs.

History-Mr. Salmon brought the seed from Long Island several years ago and has grown it in Brooklyn since. It has now become acclimated.

Variety—Long's Champion. Source—Whitehorse Farms, Paoli, Pa. Description—Stalk very tall and very large in diameter. Ear long and very large. Kernels light yellow, 14-22 rows. Does not mature at Storrs. History-Unknown.

Variety—Luce's Favorite.

Source—Suffolk Cooperative Association, Mattituck, N. Y. Description—Stalk medium in height and diameter. Ear medium in length and diameter. Kernels yellow or white, shallow, large, S rows, slightly dented, intermediate in type between dent and flint corn. Does not mature at Storrs. History-Unknown.

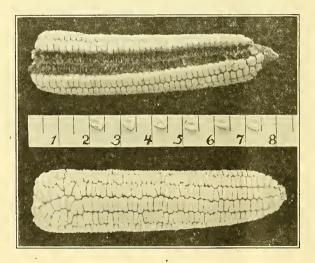


Figure 76.

Variety—Mason's White Dent. Source—W. W. Chappell, North Franklin.

Description-Stalk short and small. Ear short. Kernels white, 12-16 rows. Matures very well at Storrs.

History—Mr. Mason obtained his seed from N. S. Strong of North Plains about 15 years ago.

Variety—Mastodon. Source—S. D. Woodruff Seed Company, Orange. Description—Stalk tall and large. Does not mature at Storrs. History-Seed obtained each year from Ohio.

Variety—Mastodon.

Source-E. G. Packard, Dover, Del.

Description—Stalk very tall and very large. Ear long and very large. Kernels yellow, deep, very large, 18-20 rows. Does not mature at Storrs. History-Unknown.

Variety-Mastodon. Source-F. S. Platt Seed Co., New Haven. Description-Stalk medium in height. Does not mature at Storrs. History-Seed usually obtained from Ohio.

Variety—Early Michigan. Source-G. A. Erskine, Guilford.

Description-Stalk medium in height and large in diameter. Ear medium in length, large in diameter. Kernels reddish yellow, deep, large, 12-16 rows. Matures at Storrs.

History-Unknown.

Variety—Minnesota No. 13. Source—W. A. Stocking & Sons, Weatogue.

Description-Stalk short and small. Ear short, small. Kernels yellow, medium in depth, small, 12-16 rows. Matures very well at Storrs.

History-Grown for 12-15 years in Weatogue.

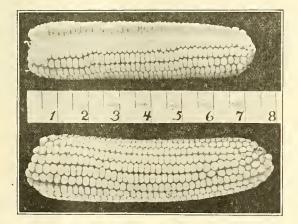


Figure 77.

Variety-Minnesota White Cap.

Source—C. S. Griswold, West Hartford. Description—Stalk medium in height and diameter. Ear medium in length, cylindrical. Kernels yellow with white caps. 12-16 rows. Matures well at Storrs.

History—Originated from about a dozen stalks found growing in a field of Canada Flint corn about 20 years ago.

Variety-Montgomery's White Dent.

Source—Phelps Montgomery, Mt. Carmel. Description—Stalk medium in height. Kernels white. Does not mature at Storrs.

History-Unknown.

Variety-White Cap Yellow Dent.

Source-N. S. Strong, North Plain.

Description-Stalk medium in height, small in diameter. Ear short and small. Kernels yellow with white caps, medium in depth and size, 12-16 rows. Matures very well at Storrs.

History-Grown in North Plain for 45 years.

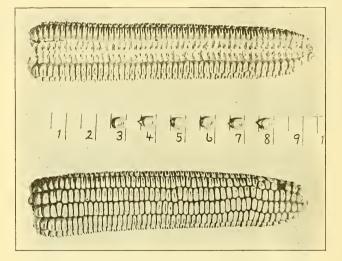


Figure 78.

Variety-Northern White Dent.

Source—B. W. Bishop, Guilford. Description—Stalk tall and large. Ear long and large. Kernels white, medium in depth, very large, 12 rows. Does not mature at Storrs.

History-Mr. Bishop obtained seed from Peter Henderson Company, New York City about 1905, and grew it near White Hickory King, with which it probably mixed.

Variety—Peck's Yellow Dent. Source—W. O. Peck, East Haddam.

Description—Stalk medium in height and diameter. Ear medium in length and diameter. Kernels yellow, medium in depth and size, 14-18 rows. Matures well at Storrs.

History-Mr. Peck obtained seed of a "Connecticut Learning" in 1916. May be slightly mixed with Brewer's Dent and also with Luce's Favorite.

DENT VARIETIES—Continued.

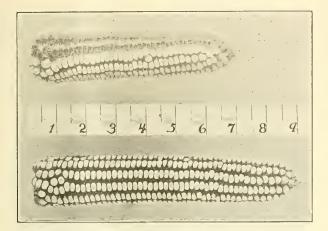


Figure 79.

Variety—Pride of the North. Source—Storrs Agric. Exper. Station.

Description-Stalk short and small. Ear medium in length and diameter. Kernels yellow, mediumly deep and small, 12-18 rows. Matures well at Storrs.

History-Improved and selected by the late Professor A. G. Gulley of the Connecticut Agricultural College, originally obtained from Ithaca, New York. Grown at Storrs about 15 years.

Variety—Pride of North. Source—I. N. Hollister, Glastonbury. Description—Stalk short and small. Ear medium in length. Kernels a variable yellow, 14-16 rows. Matures well at Storrs.

History-Unknown.

Variety—Pride of North. Source—S. W. and F. A. Kirk, Hamden. Description—Stalk short and small. 'Ear short and small. Kernels yellow, medium in depth, small, 16-18 rows. Matures very well at Storrs. Smaller

than Storrs' Pride of North. *History*—Messrs. Kirk obtained seed from the late Professor Gulley of Storrs in 1910 and have selected since for maximum number of rows of kernels and mature and well filled ears.

Variety-Pride of North.

Source-H. J. Larkham, Norwichtown.

Description-Stalk short and small. Ear medium in length and diameter. Kernels yellow, medium in depth and size, 12-14 rows. Matures well at Storrs.

History-Seed obtained from Thomas Griswold Seed Co., South Wethersfield, Conn.

Variety-Red Cob. Source-Platt Seed Co., New Haven.

Description—Stalk tall and large. Kernels white. Does not mature at Storrs.

History—Seed obtained from Missouri.

Variety—Reynolds Yellow Dent. Source—W. W. Reynolds, New Britain.

Description-Stalk medium in height and diameter. Ear medium in length, large. Kernels yellow, deep, medium size, 14-16 rows. Matures at Storrs in favorable seasons.

History-Unknown.

Variety—Sciota. Source—B. F. Page, Durham.

Description-Stalk short and small. Ear medium in length, small. Kernels yellow with white caps, 12-14 rows. Matures well at Storrs.

History-Obtained seed from Ohio about 40 years ago.

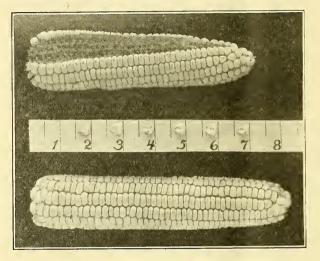


Figure 80.

Variety-Sharon White Cap. Source-E. K. Dean, Sharon.

Description—Stalk medium in height and diameter. Ear medium in length and diameter. Kernels yellow with white caps, medium in depth and size, 12-14 rows, Matures well at Storrs. *History*—Brought by C. E. Benton from Michigan about 40 years ago. Generally grown about Sharon.

Variety—Silver King. Source—Roy McDonald, Menomonie, Wis. Description—Stalk short and small. Ear short, medium in diameter. Ker-

nels white, deep, small, 16 rows. Matures very well at Storrs. History—Obtained from Iowa by Wisconsin Experiment Station in 1904 and adapted by ear-to-row selection. Grown at Menomonie about 10 years, selecting the best ears in the field.

Variety—Sutton's Dent. Source—R. C. Wilcox & Sons, Guilford. Description—Stalk medium in height and large in diameter. Ear medium mature very well at Storrs. History—Obtained from Sutton Seed Co., in Illinois.

Variety—Sweepstakes. Source—S. L. Hollister, Washington. Description—Stalk tall, medium diameter. Ear medium in length and diameter. Kernels yellow, medium in depth and size, 14-18 rows. Does not mature very well at Storrs. History—See West Branch Sweepstakes.

Variety—Sweepstakes. Source—Alex Smith, Clintonville.

Description-Stalk medium in height and diameter. Ear medium in length, large. Kernels reddish yellow, medium in depth, large, 12-18 rows. Does not mature very well at Storrs. *History*—Is a result of a cross made 15-20 years ago between "Lancaster Sure Crop" and a local Pennsylvanian variety. Has been selected since.

Variety-Sweepstakes. Source-West Branch Seed Growers' Association, Williamsport, Pa.

Description-Stalk medium in height and large in diameter. Ear medium in length and very large. Kernels a variable yellow, mediumly deep, large, 12-20 rows. Does not mature well at Storrs. *History*—Is a result of a cross made 15-20 years ago between "Lancaster Sure Crop" and a local Pennsylvanian variety. Has been selected since.

Variety-Sweepstakes. Source-Clark Seed Company, Milford.

Description-Similar to West Branch Sweepstakes.

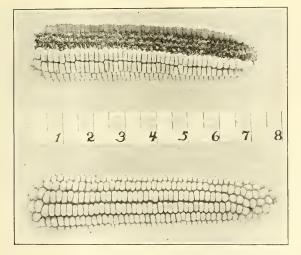


Figure 81.

Variety-Tryon Dent.

Source—J. E. Daniels, Middletown. Description—Stalk medium in height and small in diameter. Ear medium in length, tapering slightly. Kernels yellow, 12-16 rows. Matures well at Storrs.

History—Originally Dowd Dent. Brought to Middletown from Guilford about 1900 by Willis Tryon and has been grown there since by a few farmers.

Variety-U. S. Department of Agriculture No. 119.

Source-Office of Cereal Investigations, Bureau of Plant Industry, Washington, D. C.

Description-Stalk tall and very large. Ear medium in length, very

large. Kernels white, deep, large, 14-20 rows. Does not mature at Storrs. History—A selection from Boone County White, obtained from Marley. Riley, Thorntown, Boone County, Indiana. Bred by the U. S. Department of Agriculture since 1903 around Washington, D. C. Boone County White was originated by James Riley, Thorntown, Ind., in 1880.

Variety-U. S. Department of Agriculture No. 125.

Source-Office of Cereal Investigations, Bureau of Plant Industry, Washington, D. C.

Description-Stalk medium in height and large in diameter. Ear medium in length, large in diameter. Kernels yellow, deep, medium in size, 16-20 rows. Matures in very favorable seasons at Storrs.

History-A selection from Clarage, secured from Theodore Giffin at Sabina, Ohio in 1901. Grown and bred by the U. S. Departemnt of Agriculture at Sabina as Sel. 78 from 1901 to 1904. Grown as Sel. 125 at Sunbury, Ohio, 1905 to 1915. For a complete history of Clarage see Ohio Station Circular No. 117, "Varieties of Corn in Ohio."

Variety-U. S. Department of Agriculture No. 133.

Source-Office of Cereal Investigations, Bureau of Plant Industry, Washington.

Description-Stalk short and small. Ear medium in length, large. Kernels

yellow, deep, medium in size, 14-18 rows. Matures very well at Storrs. *History*—A selection from Minnesota No. 13. Secured from Professor C. P. Bull, Minnesota Experiment Station in 1903. Bred and improved by the Minnesota Experiment Station since 1893. Bred by U. S. Department of Agriculture from 1904 to 1921 at Hartford, South Dakota, and Oconomowoc, Wis.

Variety—Webber's Dent.

Source—Department of Plant Breeding, Cornell University, Ithaca, N. Y. Description—Stalk medium in height, small in diameter. Ear short and small. Kernels yellow, shallow, small, 14-16 rows. Matures very well at Storrs.

History—Developed at Cornell Experiment Station by 5 years of ear-to-row selection from Funk's 90 Day in co-operation with G. R. Schauber of Ballston Lake, Saratoga Co., New York.

Variety—Webber's Dent. Source—Willis Frost, Bridgewater.

Description-Stalk medium in height and diameter. Ear medium in length and diameter, tapering slightly. Kernels yellow, deep medium in size, 14-18 rows. Matures fairly well at Storrs.

History—Developed at Cornell Experiment Station by 5 years of ear-to-row selection from Funk's 90 Day in cooperation with G. R. Schauber of Ballston Lake, Saratoga Co., New York. Seed obtained in 1916.

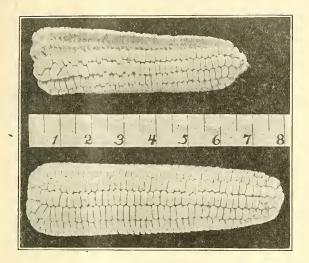


Figure 82.

Variety—White Cap.

Source-G. D. Hall, Wallingford.

Description—Stalk medium in height and diameter. Ear short and tapering. Kernels yellow with white caps, 12-16 rows. Matures at Storrs. History—Known as Tyler's White Cap and grown around Wallingford for

History—Known as Tyler's White Cap and grown around Wallingford for at least 40 years.

Variety—White Cap. Source—W. F. Herr, Brooklyn. Description—Stalk medium in height and diameter. Ear medium in length, large in diameter. Kernels yellow with white caps, medium in depth, large, 14 rows. Matures at Storrs.

History—Unknown.

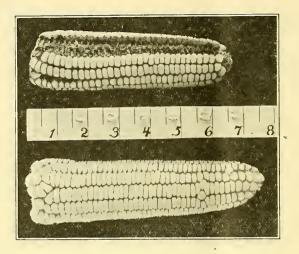
Variety—White Cap.

Source-L. C. Root & Son, Farmington.

Description—Stalk medium in height and diameter. Ear medium in length and diameter. Kernels yellow with white caps, medium in depth and size, 14-16 rows. Matures at Storrs.

History—Obtained from Mr. Kelsey in West Hartford about 1910. Originally from Chas E. Lyman, Middlefield, Conn. Grows alternately on Mountain land and low land.

Variety—White Cap. Source—Joseph Whathley, Kent. Description—Stalk short and small. Ear medium in length. Kernels yellow with white caps, 12-14 rows. Matures well at Storrs.



DENT VARIETIES-Concluded.

Figure 83.

Variety-White Cap. Source-Henry Squires, New Milford.

Description---Stalk medium in height and small in diameter. Ear short, small, slightly tapering. Kernels yellow with white caps, 12-14 rows. Matures very well at Storrs.

History-Mr. Squires obtained seed from Sharon 12-15. years ago.

Variety—White Cap. Source—West Branch Seed Growers' Association, Williamsport, Pa. Description—Stalk medium in height, large in diameter. Ear long, and large. Kernels yellow with white caps, deep, large, 16-20 rows. Matures at Storrs in favorable seasons.

History—Grown in Pennsylvania for many years.

5388 16

Variety—Woodford's Dent.

Source-G. C. Woodford, Plainville.

Description-Stalk medium in height and diameter. Ear medium in length and diameter. Kernels deep yellow, medium in depth and size, 16-20 rows. Matures fairly well at Storrs.

History-This variety is the result of crossing Early Lakeside on a local dent. Mr. Woodford makes the cross each year.

