

**SELECTING SEED CORN.**

Corn is the basis of farm operations in this State. That it is more profitable for the farmer to produce a sufficient supply on his farm than to raise other crops, from the receipt of sales of which to purchase it, is generally admitted. Usually the farmer who has corn to sell each year has money to lend, and the farmer who buys corn each season to run his farm generally wishes to borrow money to pay for it. The Department of Agriculture desires to induce the farmers to recognize these evident facts, which have so vividly impressed themselves upon our history, and thus emerge from the condition of debt and humiliation, so common among them, by producing at least the corn needed upon each farm.

In 1897 the farmers in the "Corn Belt," as it is generally called—viz., Ohio, Indiana, Illinois, Wisconsin, Kansas and Iowa—realized that the production of corn per acre was hardly half what it was twenty years prior thereto. The agricultural associations began an investigation of the subject, and afterwards corn growers' associations were formed in each State to consider solely the subject of the production of seed corn.

This paper is intended to present some of the developments along this line, as shown by their conclusions. Every grain of corn in embryo (at first) produces a strand of silk, which comes through the shuck at the end of the ear. In order to complete this grain some of the pollen or dust from a corn tassel must get on this silk and convey its vitality to the grain. If this is not done, the grain shrivels and fails to be perfected. The stalk from which the pollen is received determines in a large measure the kind of grain produced. The ear is the mother, the tassel the father of the grain of corn. As in the case of animals, it was seen that a good type or basis was necessary to produce a desired individual, and that there must be a recognized ear of corn as the example of what was desired. Many of the readers of this paper, like the writer, have selected seed corn every year—some for near fifty years. But today, while the corn in their cribs may be all sound and marketable, there are a dozen or perhaps twenty different types. One of these is best, or perhaps combining two into a new type would be better. The associations fixed on certain types and have bred to them. The small grains (wheat, oats and rye) brought into this State from the Middle States generally give the best crop the first season, but deteriorate in a few years. This has been the experience of the writer. Corn does not do this if carefully selected, but continues to improve after the first crop. We shall have to take varieties best suited to the different sections of the State and endeavor by selection to improve upon them.

Our Western friends report that "inbreeding" in corn is as undesirable and degenerating as in animals. The Department of Agriculture of Kansas, in 1903, published a bulletin on this subject. By the kindness of Mr. F. D. Coburn, secretary of the Board of Agriculture of Kansas, I present a picture of the result of five years of inbreeding and crossbreeding.

To prevent inbreeding was one of the first steps taken after choosing the type. Last spring, through the newspapers, I requested those interested to plant six ears of corn in six parallel rows. This corn will soon be shooting and tasselling. To prevent inbreeding or the pollen from the tassel fertilizing altogether the silk on the ear of the same stalk, just as the tassel appears cut out

every tassel on the ear of the same stalk, just as the tassel appears cut out every tassel on one-half of row No. 2; then get over on row No. 3 and cut every tassel to the end of it; then at the end begin on row No. 4 and cut tassels halfway back; then change to No. 5 and cut to the end, as follows:

- 1. \* \* \* \* \*
- 2. Detasselled. \* \* \* \* \*
- 3. \* \* \* \* \* Detasselled.
- 4. Detasselled. \* \* \* \* \*
- 5. \* \* \* \* \* Detasselled.
- 6. \* \* \* \* \*

Then go through the corn that has not been detasselled and detassel every barren or undesirable stalk (that is, every one that has no ear upon it). If you desire a variety of more than one ear to the stalk, then detassel all the stalks having less than two ears. If a stalk has its ears too high and tends to produce too much stalk, then detassel these, and thus fix the desired type.

Where you have a field of one kind of corn you might select any portion of it for your seed patch and treat it as recommended for the six rows above. Detasselling should be done as soon as the tassel appears.

**Barren Stalks.**

Barren stalks are said to produce a greater amount of pollen, therefore should be promptly removed, or the pollen will cause the shoots upon the good stalks to produce ears that will bring other barren stalks.

Barren stalks were found to be perhaps more detrimental than inbreeding. The loss from such cause is no surmise or guesswork, but can be easily proven. Go through a row of corn, count the barren stalks as compared to those bearing ears, and you have the proportion of loss. If you and a neighbor are passing through your or his field, let each of you take two rows and count as above, and then calculate what would be the increase if every stalk bore an ear. You have the stalk, and your fertilizer and land are taxed to produce it. All that is lacking is the ear. This loss was reported to be at least one-third, but has been reduced to less than ten per cent in five years. If you find a stalk of corn you deem desirable for seed, detassel all undesirable stalks within ten feet of it, or you may have for your seed the very stalk you deem most undesirable. Careful attention to this matter will do much to increase the quality and quantity of corn in this State next year.

**Score Card For North Carolina.**

The determination as to what this shall be should have careful consideration. There must be several, as we have different types of corn that are most productive in different sections of the State or in different kinds of soil, as upland and bottom, e. g., prolific corn, upland corn and bottom corn. The same score will not answer in the same degree for each of these. I would propose the following, which can be varied after an opinion as to what is desired has been formed:

- 1. Market condition, i. e., maturity, condition, etc. . . . . 15
- 2. Per cent shelled corn. . . . . 20
- 3. Trueness of type. . . . . 10
- 4. General appearance (including 5, 11 and 14 of Western table) . . . . . 10
- 5. Shape and length of grain. . . . . 10
- 6. Uniformity . . . . . 5
- 7. Butts . . . . . 5
- 8. Tips . . . . . 10
- 9. Length of ear . . . . . 5
- 10. Circumference . . . . . 5
- 11. Color of cob . . . . . 5

The rule established for length and circumference is that the circumference one-third from the butt shall

not be greater than three-fourths of the length of the ear.

If seed corn is to be judged, I would put vitality at 20 and omit 7, 8, 9 and 10.—From 1909, June Bulletin.

**BOOKKEEPING and SHORTHAND**

Taught by Specialists. School thoroughly reliable. Positions for all our graduates. No vacations. For literature, address the

**GREENSBORO COMMERCIAL SCHOOL**  
Greensboro, N. C.

**THE NORTH CAROLINA COLLEGE OF Agriculture and Mechanic Arts**

*The State's Industrial College*  
Four-year courses in Agriculture; in Civil, Electrical, and Mechanical Engineering; in Industrial Chemistry; in Cotton Manufacturing and Dyeing. Two-year courses in Mechanic Arts and in Textile Art. One-year and two-year courses in Agriculture. These courses are both practical and scientific. Examinations for admission are held by the County Superintendent at all county seats on July 11th.

For Catalog address  
**THE REGISTRAR,**  
West Raleigh, N. C.

**Oxford College**

OXFORD, N. C.

FOUNDED 1850.

Courses in Literature, Music, Art, Teaching, Business and Domestic Science.

University trained teachers. Equipment new. Charges reasonable. Board and Literary tuition a year, \$167.50.

Apply for Illustrated Catalogue.

**F. P. HOBGOOD, President.**

AUG. 1

**Boiling Springs High School**

OPENS, TUESDAY, AUGUST 13, 1912

A splendid preparatory school, able corps of teachers, large, comfortable, brick buildings, pure spring water and suitable grounds for athletic sports. Expenses reduced to actual cost. Supplies for the table supplied by the surrounding farmers. Y. M. C. A. and Y. W. C. A. Prayer Meeting, and Church and Sunday School every Sunday. Splendid literary societies, for boys and girls. Music and Art departments. Catalogue on request.

(July 25) **W. J. FRANCIS, Principal, Shelby, N. C., Route 3.**

**Why Not Buy**

your Piano from an old reliable Music House, one that has always sold good reliable Pianos at very reasonable prices? In patronizing such a house you will always get just what you pay for and it is the only way to safeguard yourself from being imposed upon. Such a house is the

**DARNELL & THOMAS**

RALEIGH, N. C.

Headquarters for VICTOR and COLUMBIA Talking Machines.

We extend to the Farmers' Union of North Carolina a cordial welcome to our Capital City.

**OUR SERVICES AT YOUR COMMAND.**

**THE COMMERCIAL NATIONAL BANK**

RALEIGH, N. C.

**B. S. JERMAN, Pres.**

**E. B. CROW, Cashier.**

**A. A. THOMPSON, Vice-Pres.**

**A. P. BAUMAN, Asst. Cashier.**

**AGRICULTURAL AND MECHANICAL COLLEGE FOR THE COLORED RACE**

Open all the year round. Fall term begins September 1st. For free tuition or catalog, address  
**JAS. B. DUDLEY, Pres., Greensboro, N. C.**



**ELON COLLEGE**

**BEAUTY — HEALTH — SCHOLARSHIP**

Lowest rates in the South. Delightful location. Deep well water. Twenty-two years without a single case of dangerous sickness. Clean athletics. A distinguished Bostonian writes: "Of all the colleges I have visited in six years as International Field Secretary of Christian Endeavor, the spirit of Elon College seems to be the most genuinely Christian." —Karl Lehman. Write at once for catalogue and views.

President, **W. A. HARPER,**  
Box **Elon College, N. C.**

**Louisburg College**

North Carolina

for

Young Women and Girls.

Thorough Work in Books. Sympathetic Training in Manners and Morals. Positive Religious Teaching and Training. Pleasant Location and Spacious Grounds. Fine Health Record. Moderate Charges.

One Hundred and Eleventh Year  
Begins September 11th, 1912.

SEND FOR CATALOG.

Mrs. **MARY DAVIS ALLEN,**  
I. ALLEN, Sec'y. **President.**  
**LOUISBURG, N. C.**