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INFORMATION
ON
CORN GROWING
FOR
CORN CLUB BOYS

BY
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INTRODUCTORY

AUBURN, ALABAMA, October, 1913.

To the Members of the Boys' Corn Clubs:

We sincerely hope that each boy receiving this circular will fully realize that the objects of the Boys' Corn Club are not simply to grow more corn, make large yields and win prizes. Of course we wish you to learn all about successful corn growing; but what is far more important and what we would have each boy, who joins the corn club, fully understand, is that farming is one of the noblest callings that man can follow, and that it is the one great calling which all mankind should look upon with the greatest respect.

The farmer must feed and clothe the world. In order to have the best there is in life, in education, home life, religion and all other things which pertain to civilization, we must have a bountiful yield from our soil. You should have the greatest respect for the earth, mother earth, because from her comes all life and if she should cease to produce crops, we should at once cease to exist.

You should be proud of Alabama, for there are few states offering so many golden opportunities for success. Alabama is rich in fine timber, mineral and coal deposits, long river navigation and water power, but, above all, her rich fields and valleys, her long growing season, her ample rainfall and her gentle and mild climate combine to make her one of the foremost states in the Union in agriculture. Every young Alabamian on the farm should realize this, should carefully study the business of farming and should look forward some day to owning a farm, living on it and cultivating it in an intelligent, scientific way, thus making an abundant living, being a noble citizen and serving God in the highest and best sense. These are some of the high principles which we hold before every boy who joins the Boys' Corn Club.

In the future the greatest opportunities for wide awake, intelligent, energetic young men are in farming. Be faithful in your club work and let us together build of our state a great Empire in itself, and as we do this, make wealth and happiness for ourselves.

Train your mind to think and plan; train your hands for service; train all your body to be strong and well, so as to resist disease; and above all, train your heart to follow in the paths of righteousness.

Join the Boys' Corn Club for study, for development and for service. Do not enter for a few days or weeks and then drop out, but remain with us and let us help you, for we are deeply interested in you and all your good undertakings.

Sincerely your friends,

L. N. DUNCAN,
J. B. HOBDY.



Fig. I—Alabama Delegation of Corn Club Boys and Tomato Club Girls at the National Corn Exposition School for Prize Winners, Columbia, S. C., January 29th to February 8th, 1913.

GENERAL INSTRUCTIONS.

There are four leading principles of agriculture involved in making a successful corn crop:

1. Seed Corn.
2. Preparation of Seed Bed.
3. Fertilization.
4. Cultivation.

SEED CORN

You cannot expect to raise fine hogs from scrubs nor should you expect to raise the best and most corn per acre unless you have good seed. It is possible to make from five to fifteen bushels of corn more per acre from good seed than from poor seed with the same soil, fertilization, cultivation and without additional cost. It is very profitable, therefore, for every boy joining the corn club to strive to have good, improved seed corn. You should get the very best seed possible to begin with and then pay very careful attention to keeping it good or even improving it.

If you have some good corn, or if your neighbor has some that

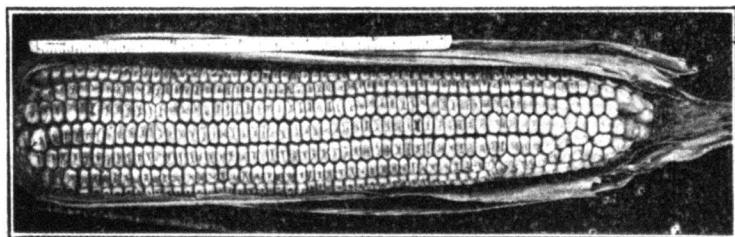


Fig. II—A good seed ear with protected tip.
(W. E. HINDS)

is well adapted to the soil and climatic conditions of your farm, it may be best to begin with this and carefully improve it.

It is an easy matter to improve corn by seed selection. If you select each year the best ears from the best plants, you are bound to improve the corn, because you are always using seed from the strongest and best plants and ears and rejecting the poorest.

Begin the work of selecting in the field where you can study the plant as well as the ears. In the early fall when the corn begins to mature, go over the field and mark the stalks from which you wish to get seed. This might be done by tearing up strips of old cloth and tying on the stalks. Allow these plants to thoroughly mature, then cut the plant off above and below the

ears, take them in and store them where they will be safely taken care of through the winter. When ready to plant carefully select the best seed ears from these two-eared plants.

The large number of experiments made by the experiment stations and the department of agriculture shows that corn having two good ears on the stalk makes the greatest number of bushels per acre. In selecting stalks from which to get seed ears, mark only those that have two good, well developed ears on them. Always see that the stand is good on all sides of the plants which you mark, because stalks near long skips may make two ears on account of the distance apart of the plants and not on account of the quality of the seed.

The corn plant should be medium in height, free from suckers and well developed with a good leaf system. The ears should be from $3\frac{1}{2}$ to 4 feet from the ground. The ear stalk or shank should be medium in length and curve over so that the tip of the ear points downward. The shuck or husk should come well out over the end of the ear for protection.

A good length for an ear of corn is from $8\frac{1}{2}$ to 9 inches and a good circumference or size is from $7\frac{1}{2}$ to 8 inches around the ear about three inches down from the large end. The ear should be nearly cylindrical, that is, it should taper very little or none from the large end towards the small end. The rows of grain should be straight or nearly so and should extend well out over both ends of the cob. The grains or kernels should be of good length, wedge shaped, and should fit together closely on the cob.

PREPARATION OF SEED BED AND PLANTING.

Perhaps the best soil for corn is a rich, well drained loam, but with the proper care and treatment good yields may be made on nearly any well drained soil, which is not too poor in fertility. For prize acres it is best not to select low wet land, which is subject to overflows. The entire acre, 4,840 square yards, should lie in one body and should not have large open ditches running through it nor large stumps or trees on it, if possible.

In making a successful acre of corn it is very important to thoroughly prepare the land. In most cases where the soil will permit, it may be best to break the land in the fall and sow some oats, wheat, rye or clover as a winter cover crop to prevent washing and leaching of the soil. This crop may be grazed during the winter by animals or cut for hay or turned under in the spring to improve the soil. The soil should be well broken, going two or three inches deeper than it has ever been broken before. You should have a soil from six to ten inches deep, but it may take two or three years to get down this deep, going gradually deeper

each year. Of course deep sandy or loose loam soils may **not** need this deep breaking. If sub-soiling is done, be sure that the sub-soil is dry. If fall plowing is done, or if winter cover crops are sown, it may be necessary to re-break in the spring just before planting. If the soil is very rough, a disc harrow may be used and then a smoothing harrow. The preparation for the seed bed is one of the most important steps in the making

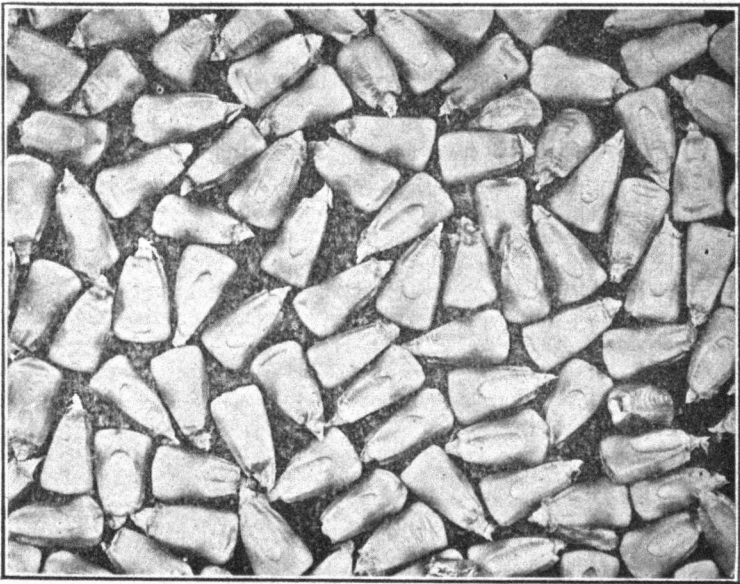


Fig. III—Well shaped kernels.
(W. E. HINDS)

of a successful crop and it should be very thoroughly and carefully done.

A great many boys, who make large yields of corn, bed the land and plant in the water furrow. This is an excellent plan except on low, wet land or very heavy clay land.

On good land make the rows 4 to 5 feet apart and leave the plants 12 to 15 inches in the drill. If the land is very fertile or if large amounts of fertilizer are used, plants may be left thicker in the drill. On poorer land leave the plants farther apart, say from 18 to 30 inches.

FERTILIZATION.

For average land mix 400 pounds of acid phosphate with 200 pounds of cotton seed meal and 200 pounds of kainit. Apply this mixture at the rate of 500 pounds per acre. A larger amount

may be used, if you think wise, but you should be careful how much you use on account of the expense. On heavy clay lands that have been well and deeply prepared you may wisely leave out half of the kainit. On land following a growth of cowpeas or clover you may omit half of the cotton seed meal. If fertilizer is used at planting, it should be put in opening furrow and a plow run through it to thoroughly mix it with the soil before the corn is dropped.

On average land it may be wise to save all or at least two-thirds of the above fertilizer mixture and apply it along the side of the growing corn at the first and second cultivations. Most of the acid phosphate, meal and kainit should be applied, however, before or by the time the corn is $2\frac{1}{2}$ to 3 feet tall. If the corn does not have a dark, rich color and is not doing well just before it is ready to fruit, apply from 100 to 200 pounds of nitrate of soda to the corn. This is a very quick acting fertilizer and for this reason it should not be applied until the corn is ready to use it. Most of the boys, who make large yields of corn and use nitrate of soda, distribute it along on each side of the row just before the corn begins to tassel.

If you prefer to use a ready mixed fertilizer, apply about 500 pounds of a high grade guano. You might be governed in using this as above, that is, save all or two-thirds of your guano and apply it along on each side of the growing corn. Most of it should be in the ground by the time the corn is $2\frac{1}{2}$ to 3 feet tall. Nitrate of soda should be used as indicated above.

Barn-yard manure is an excellent fertilizer for corn, if properly used. It is perhaps best to apply it broadcast before breaking the land. A harrow run over it before breaking will help to crush the large lumps and thoroughly distribute the manure. It is doubtful if it is wise to apply the manure in the drill under the corn, as this will cause too large a growth of the stalk and injure the corn very much in case of drought.

If it is necessary to apply manure in the drills, open a large furrow out in the center of the middle, apply the manure in this and cover it. As the corn is cultivated the manure will gradually be plowed out towards the corn, mixed with the soil, and the corn will get the full benefit of it without so much danger of injury from it.

When heavy applications of manure are used it may not be necessary to apply any commercial fertilizer except acid phosphate, using this at the rate of from 200 to 400 pounds per acre. Nitrate of soda may also be used at the rate of from 100 to 200 pounds per acre just before tasseling time, if the corn is not doing as well as it should.

CULTIVATION.

The two main objects in cultivation are, first, to kill the weeds and, second, to make a loose dust mulch of the top soil, in order to prevent the loss of moisture.

It is advisable to begin cultivating the corn early. Some of the corn club boys, who make fine records, run a light harrow over the corn before it is up. If the land becomes hard and compact, one deep cultivation may be given while the corn is small. As the corn develops, frequent shallow cultivations should be given. The corn should be cultivated regularly every six to ten days. It is very important to cultivate as soon as the ground is dry enough after a rain, in order to kill all weeds that may come up and to stir the surface and prevent loss of moisture.



Fig. IV—This boy followed instructions, filled out report and won a prize.

When the corn starts off growing, it is not very long until the entire soil for several inches deep is filled with the root system. These roots are very vital and important to the life of the corn, hence they should not be disturbed too much in the cultivations.

A spring tooth harrow is an excellent implement to cultivate with, as the work can be done rapidly with it and the danger of injury to the corn roots is not so great. A short scooter with

a wide heel scrape is also good. Of course during continued rains the weeds may get so large and the condition of the crop such as to require larger and heavier plows to do effective work.

Corn is very often "laid by" too soon. If the cultivations are kept up regularly, it is perhaps wise to continue to cultivate until after the corn tassels, and very often in dry seasons it will pay to cultivate until the silks appear, or even later. It is very important, however, to make the late cultivations very shallow, merely stirring the surface of the soil as lightly as possible.



Fig. V—Ten seed ears selected by a corn club boy.

CONCLUSION.

In conclusion allow us to urge that you keep a full record of everything that you do to your acre of corn from the time you begin the preparation of the soil until the corn is gathered. Be sure to record the time, amounts and manner of application of all manures and fertilizers used. Get you a small note book and write down fully each time just what you did to the land and the corn.

At the end of the season we will send you full directions for gathering and measuring your corn. We will also send you a blank to use in making out a report on your crop.

At any time when we may be of service to you write to us.