

- (8) Have you practiced crossing different varieties?
- (9) What have been your results of the above?
- (10) Do you detassel any of your rows? Entirely or in part?
- (11) What are the most striking results you have obtained?
- (12) What one result do you strive for above all others?

My answers were most surprising. Some corn breeders of more or less reputation would have nothing to say as to breeding methods. Some would condemn one method, while others would praise it. Some showed very scant knowledge of any breeding methods. Many were discouraged with breeding plats. In answering the question about detasseling, one breeder, who sells, according to his statement, 3000 to 4000 bushels of seed corn a year, answered that he detasseled his entire plat!

The last two questions, as to improvement already made, and as to the most important point to be worked for, brought forth the fact that the score card or some other influence is leading many of these corn breeders astray. No one can dispute that the first and greatest of all objective points must be yield. Yet not one in five would mention yield in answering either of these questions.

Many new varieties it seems have been produced by crossing established varieties. However, it is my belief that any improvement made in this way could have been obtained to a greater extent by following a certain breeding method within the variety.

I am convinced that at certain universities methods are being employed that will sooner or later give tremendous results.

In conclusion I wish to suggest a National Registry Association. Some 20 men who are doing the practical and beneficial work must get together and endorse a system of breeding and formulate a plan for registration of varieties that have a performance record behind them.

NEED OF PUREBRED STOCKS OF ANIMALS IN THE SOUTH.

By Prof. C. A. CARY, *Auburn, Ala.*

In the South the breeding of purebred animals has not received attention according to its importance. This is due in part to the paucity of purebred animals and in part to the single-crop (cotton) system of farming. Changes are coming, and the South will and must become a great factor in the live-stock world.

A few farmers have embarked in the beef-cattle industry, and since 1900 more purebred Shorthorns, Herefords, Angus, and Devons have been brought in to that part of the South lying east of the Sabine river than ever before in its history. It is true that many of these animals have been bought by inexperienced men and upon a pedigree without having been seen by the purchasers. Consequently many of

the "culls" from Northern herds have found their way into the South. Moreover, this accounts for many cases of failure and indifferent success. With experience has come knowledge and the farmers' institutes are educating the farmers to higher ideals and better methods. There is great need for many more purebred beef herds in every Southern State.

The dairy herds of purebred cattle are confined almost exclusively to the Jersey breed. While there are a few registered Jersey herds of high quality and rich breeding, there are others which fall below the average Jersey standard. Possibly as many highly bred Jerseys have been brought into the South during the past forty years as in any other part of America of equal area.

But why is not the South furnishing its share of purebred Jersey cattle to world buyers? Largely for want of cooperation. Had the early Southern Jersey breeders united and kept up a fairly good system of selection based upon actual production of milk and butter (keeping their own company or cooperative association registration books) they would now have a corporation or trust with a "corner" on some of the richest Jersey blood in the world. You may hear men say that the South is not a beef country, but it is an established fact that the South is an ideal place for the Jersey. There are more good Jersey grades in the South than in the North, East, and West.

Saddle and light-harness horses have been bred in the South for years, but the farmers as a whole cannot afford to breed such horses. Farmers must have largely the motor horse—one that can plow, draw machinery, or haul a wagon. As a rule a farmer cannot afford to breed a race of horses that cannot be used on the farm. In other words, a farm should produce the horse power required to run the farm. At present there is no animal that will give greater returns for the money invested than the dam that will produce the heavy mule. We talk about cattle selling at 7 to 8 cents and do not realize that mules sell at 20 cents per pound and it costs no more to raise a mule than it does a steer. What the South (cotton South) needs is the long-bodied, long-necked, big-headed, long-eared jack and the draft dam that will give body to the mule she produces. Henry Clark, of Wartrace, Tenn., says the Percheron mare is the best dam for producing mules. If this be true, the cotton belt of the South must have such a draft mare; because Tennessee and Missouri can no longer furnish sufficient mules for the cotton, sugar, and rice plantations of the South and also supply the West Indies, Mexico, Central and South America. Hence the South must have the mule jack and purebred and grade draft mares. In order to get such dams, purebred draft stallions and mares must be brought into the South and highly bred grade draft mares must be grown to supply the home demand for mule dams.

It is scarcely necessary for me to say that the South is the country beyond compare for the production of the finest bacon hog on earth. We need more Tamworths, and Berkshires, and possibly the large Yorkshire.

Sheep breeding is sadly neglected. The mutton sheep and particularly the Christmas lamb can be made in the South. The Shropshires, Southdowns, Dorsets, etc., will do much toward bringing up our native flocks. The great aim should be September lambs to be pushed for a Christmas market.

Now is an opportune time for southern experiment stations, agricultural colleges, and commissioners of agriculture. Every Southern State and possibly every county should be organized into a breeding association for profit and for development of special-purpose and type animals. There should be no open go-as-you-please organization. Let there be an iron-clad agreement that the best shall not be sold, but kept within the organization. Of course, there are other rules and laws to be followed explicitly and the plans suggested by W. M. Hays in his series of articles on Breeding Animals and Plants that appeared in the Breeders' Gazette might serve as a working basis.

But why should this work be commenced now in the South? The breeders are few and they could readily unite. Moreover, the livestock industry will and must grow in the South during the next decade more rapidly than ever. Consequently there is no possible chance for a decrease in the home demand for many kinds of purebred live-stock.

Suppose a Shorthorn breeders' association should be formed in Alabama or in a given part of Alabama. Just now it would contain only a few men. Let them organize for a period of 25 to 50 years. Let them select for a definite purpose, such as the dual-purpose Shorthorn. Let every breeder be compelled to breed to a selected end or purpose. Let no man sell the first, second, or third best of his herd in bull or cow except as permitted by the association. Let there be rules by which the best bulls may be shifted from one herd to another in the organization. In 25 to 50 years this organization would have a trust in truth and in fact on that special type of Shorthorn. In order to launch and perpetuate such an organization, there must be a union of the scientific man, the business man, and the practical man.

REPORT OF THE COMMITTEE ON BREEDING FIBER CROPS.

By L. H. DEWEY, *Chairman, Department of Agriculture, Washington, D. C.*

Practically all that has been done in this country in the breeding of fiber plants is included in the seed selection begun under the direction of W. M. Hays' direction at the Experiment Station at St. Anthony Park, and the selections made by Prof. Bolley at the North Dakota Agricultural College. I have full information as to the type of flax plants desired for the production of fine spinning fiber, and also the type desired for the manufacture of binder twine. These types are now produced by seed imported from Europe, and not grown more than two or three generations for fiber production in this country.