

BULLS Bred Pure The Yearbook of Agriculture for 1926
Replace Scrubs announced the achievement of Union
in More Counties County, Ky., in banishing all grade and
 scrub bulls. It was the first county to
 reach that much-sought goal in livestock-improvement work. Dur-
 ing 1927 two additional counties repeated the accomplishment. In
 October, Craig County, Va., disposed of its last grade bull, and ap-
 proximately a month later Russell County, Ky., became the third
 county in the United States to banish all bulls except registered
 purebreds.

The results in each case were possible largely through the excellent
 cooperation of local breeders with county and State extension
 workers. In view of the wide interest in livestock improvement the
 following outline of the campaign in each county may enable leaders
 elsewhere to achieve similar success.

Bull Map Used with Success in Craig County

In Craig County, Va., W. O. Martin, the county agent, found by
 a preliminary survey in 1916 that every herd sire in use was a scrub
 of unknown lineage. Being convinced that improvement of this
 situation would add to the returns from cattle raising in the region,
 he set to work quietly on a better-sire program. He visited breeders,
 gave talks, wrote items for the local paper, distributed selected
 clippings and bulletins on livestock breeding, and otherwise sought
 to create a sentiment for a higher quality of stock that in turn would
 bring better prices. The cattle sold from the county all went the
 beef route, there being no serious attempt to develop purebred
 breeding herds. The persistent educational work continued for 10
 years, at the end of which Mr. Martin took stock of the situation
 again. A survey in January, 1926, showed that the county con-
 tained 26 purebred bulls, of which 13 were Herefords, 10 Shorthorns,
 and 3 Aberdeen-Angus. There were also 18 scrub bulls still on hand.

As a record of the bull population he made a map (fig. 40) measur-
 ing about 3 by 4 feet, representing the county and containing the
 approximate likeness of every bull used for service. The various
 breeds were represented by pictures cut from breed papers. The
 scrubs were, of course, pictured also. This map hung conspicuously
 on the wall of his office. He also took it to meetings held in various
 parts of the county. Whenever a scrub bull was replaced by a
 purebred, he promptly pasted a likeness of the purebred animal over
 the scrub, leaving enough of the scrub showing to serve as a record of
 the replacement. Meanwhile he continued the incessant barrage
 of evidence showing the value of better breeding stock. This was
 so effective that the next survey, in January, 1927, showed 9 addi-
 tional purebred bulls and 10 fewer scrubs and grades. Many of the
 breeders by this time were selling cattle sired by the newly intro-
 duced purebred bulls. Their satisfaction with both the class of stock
 and prices received helped the campaign considerably.

41 Bulls, All Purebred

L. I. Case, animal husbandman of the State extension service,
 made frequent trips to Craig County to aid in the replacement of
 inferior herd sires by carefully selected purebreds. Director of

Extension J. R. Hutcheson also sponsored the work. It may be added that no special inducement, such as the lending of bulls, gifts or exchanges, occurred, but that every herd sire was purchased at a price in keeping with its value. The same condition was true of female stock, which also demonstrated the worth of good breeding. One stock owner who purchased a bred cow—a purebred Hereford—for \$75 sold the calf for \$100 and a second calf from the same cow for \$90.

Meanwhile public sentiment and economic pressure were gradually having their influence on the owners of the few surviving grade bulls. A check-up on October 26, 1927, revealed that the county contained 41 purebred herd sires, all registered, and no scrub or grade bulls. This achievement was promptly recognized by the State animal husbandry and extension authorities at Blacksburg, Va., and

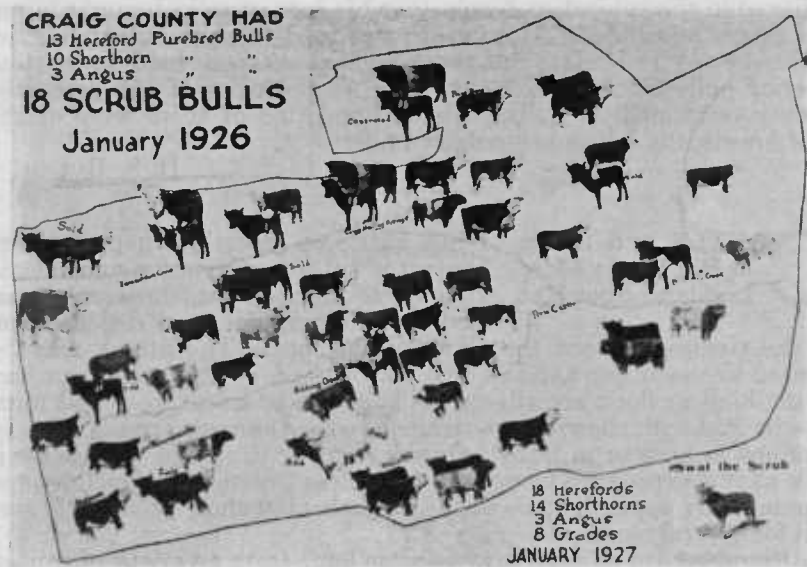


FIG. 40.—The bull map which was so effective in Craig County's successful better-bull drive

by the United States Department of Agriculture. County Agent Martin reports that he has received requests for assistance in the selection of six more sires and that the number of bulls in the county probably will increase still more to meet prospective breeding requirements. Though the beef industry predominates in the county, the Guernsey breed of dairy stock is also represented and the combined efforts of all made it possible for Craig County to reach the 100 per cent purebred-bull goal.

Methods Used in Russell County

In Russell County, Ky., the drive against inferior sires was somewhat more intensive, being of only two years' duration. The accomplishment is especially worthy of attention because purebred bulls were very scarce in the region and transportation facilities meager. Most of the bulls introduced were brought considerable distances

and usually made the last part of their journey on foot. Russell County has no railroads nor hard-surfaced highways. The principal arteries of travel are the Cumberland River and dirt roads.

Although there had long been a recognition among cattle owners of the importance of good breeding stock, this belief did not take definite action until the recent campaign. The county agricultural agent, M. H. Sasser, was chiefly responsible for the final eradication of all bulls except registered purebreds. During the last part of the campaign three purebred bulls of good type were slaughtered merely because their registration papers could not be obtained.

The methods used in Russell County were of a "revival" nature. Mr. Sasser talked purebred sires on all occasions when he could find an audience. As described by Wayland Rhoads, Kentucky field agent in animal husbandry, Mr. Sasser "spoke to groups on the streets and in stores. He talked in the schools and at special meetings. He believed in the subject so deeply that his earnest talks brought larger and larger audiences." Literature was used to some extent but the spoken word proved to be the principal weapon used in routing inferior bulls from Russell County. At the close of the drive the county contained 51 bulls. About four-fifths of them were of the beef breeds, the others being dairy bulls.

D. S. BURCH.

CATTLE and Sheep When cattle or sheep are kept in large
in Big Herds More herds it is not uncommon for some of the
Liable to Foot Rot animals to develop lameness accompa-
 nied by inflammation and degeneration

of the tissues between the claws of the foot. The attack may be limited to one or two animals or it may spread until several members of the herd or flock are affected. The disease seems to spread most rapidly and with the greatest virulence where animals are kept closely confined in pens or in filthy barnyards. The course of the disease is slow as is also progress in recovery. Unless treatment is carefully and energetically applied, some of the animals may show evidence of sore feet for several months.

Although farm animals may become lame from a variety of causes, this discussion deals only with lameness caused by the contagious form of foot rot. The disease presents the same general characteristics when occurring in cattle or sheep, and is due to destruction of the tissues in the cleft of the foot following an invasion of the germ *Actinomyces necrophorus*.

How Infection Gains Entrance

These microorganisms gain entrance to the sensitive tissues of the foot by passing through some wound in the skin, such as a perforation resulting from stepping on a nail, sharp stick, or piece of wire. The germ, which is widely distributed in nature, will not penetrate the uninjured skin. Arriving beneath the skin, the bacteria lose no time in forcing their way into the healthy tissues where they soon cause the development of fever and inflammation.

The inflammation rapidly invades the sensitive tissues beneath the horn of the hoof, while from the ulcerous opening there exudes a thin, purulent fluid. Lameness has become quite evident at this stage,