SOY BEANS GOOD AS STAPLE CROP

Important for Improvement of Soil and Possess High Feeding Value.

HAY VERY VALUABLE FORAGE

Cattle and Horses Like It and Is More Nutritious Than Cowpeas—Waste Beans Pastured With Swine With Much Profit.

(Prepared by the United States Department of Agriculture.)

The soy bean is destined to take a very important place in the agriculture of the cotton belt, not only as a means of improving the soil but also as a feed and commercial crop. It has already been grown with marked success in many parts of the south, and in one section of northeastern North Carolina has become a staple crop.

The primary use of soy beans, as now handled in the south, is to improve the soil. It is a legume, and through the bacteria that form nodules on the roots of the plant it has power to use the free nitrogen in the air. Farmers say that ordinarily as a result of planting soy beans one year the yields of the succeeding crops are increased from 10 to 25 per cent, and where soy beans are planted in rotation for several years the yields of other crops are frequently increased by 50 per cent, apparently as a result of the soy bean alone. In northeastern North Carolina soy beans have practically replaced cowpeas, and the soy bean is now the only legume largely used for soil-improvement purposes in that section.

Feed for Live Stock.

A second use of soy beans is as feed for live stock. Soy-bean hay is a valuable forage, excelling cowpea hay. Cattle and horses like it better and it is more nutritious. The soy-bean hulls, stems, and leaves left from thrashing are used for feeding livestock, and some farmers feed nothing else to the work stock for roughage the year around. Waste beans left from harvesting, and soy beans planted in corn, are pastured by hogs with profit, and the forage left on the land is pastured by cattle and horses. A field of soy beans is sometimes hogged down without any other harvesting; but this is not a common practice, for the crop can generally be used more profitably in other ways. Soy beans make a soft pork, much like the peanut-fed product. The pork may be hardened by adding corn to the ration while pasturing or by feeding on corn alone after taking the hogs off of the soy beans.

Cultivating Soy Beans.

Important Commercial Crop.

Lastly, the bean itself is an important commercial product. The beans are sold for seed, for canning, and for using in other ways for human food, and for oil and meal. At present the demand for seed takes a large proportion of the beans produced. Canning companies use the beans for mixing with navy beans. Considerable quantities of beans are retailed to consumers, who use them much like navy beans. Of recent years cotton-oil mills have been using the beans for expressing oil and producing meal. The machinery that is used for crushing cotton seed can be used for crushing soy beans, and as the average cotton-oil mill is in operation only about half the year these mills can be used without added cost of equipment for handling soy beans. A ton of soy beans, 33 1-3 bushels, will yield approximately 240 pounds of oil and 1,620 pounds of meal, the amount depending upon the character of the beans and the efficiency of the manufacturing operations.

PROFITABLE COW WILL HELP

Goes Long Way Toward Assisting in Feeding Our Armed Forces—Scrub Animal Is Slacker.

Prepared by the United States Department of Agriculture.)

The profitable dairy cow helps to feed our armed forces and will help us win the war, but the low producing, unprofitable scrub is little better than a slacker. The unprofitable cow may enjoy perfect health and have a large appetite; she may even belong to one of the best cow families, but if she is not an economic producer she should be converted into meat.

PROPER MANNER FOR HANDLING HAY CROP

When Exposed to Successive Rains It Is Injured in Quality.

Many Farmers With Small Acreage Disregard Dewfall and Prefer to Mow in Afternoon, Thus Giving Hay Chance to Wilt.

(Prepared by the United States Department of Agriculture.)

It is a matter of common knowledge that hay exposed to successive rains is injured in quality and loses in aroma and palatability. A light rain or a heavy dew does but little injury to freshly cut hay in the swath. Indeed, many farmers whose acreage is not large disregard dewfall and prefer to mow hay in the afternoon, thus giving the hay a chance to wilt overnight. Rain causes partly cured hay to become bleached and moldy, and continued warm rains dissolve and carry away a considerable portion of the nutrients.

Hay should never be raked, cocked, or put into the stack or barn when there is any dew or rain on it. Such hay is very liable to mold or heat, and even spontaneous combustion may occur.

Hay Should Not Be Rushed to Barn Before It Is Properly Cured.

If a rain comes on when the hay is partly cured in the swath, it is bad practice to rake it into windrows, for it will be damaged no more in the swath than in the windrow. Hay that gets wet in the windrow will have to be spread out later to dry. The same holds true about cocking. In case of rain, nothing is gained by hurriedly cocking or bunching hay that is almost cured, unless large hay caps are put on the cock. When such hay is rushed into the cock it will not turn water and will be wet all the way through, and if not scattered out after the rain is over will soon begin to heat and will spoil.

TILLAGE OPERATIONS

(Prepared by the United States Department of Agriculture.)

Numerous cost-account records collected by the office of farm management, United States department of agriculture, show that on the average diversified American farm the cost of tillage operations comprises from 30 to 40 per cent of the total cost of farm operations. Probably half the total amount of cultivation required is necessary only for controlling weeds, and in many instances practically all intertillage could be eliminated without affecting crop yields if by other means weeds were prevented from growing.

WATER SUPPLY FOR POULTRY

As Necessary for Fowls as Sufficient Quantity of Food—Different Types of Vessels.

(Prepared by the United States Department of Agriculture.)

A supply of pure drinking water frequently renewed is as necessary for poultry as sufficient supplies of food.

There are two different types of drinking vessels for poultry in common use: Open vessels—pails, pans, crocks and the like; and drinking fountains so constructed that dust and dirt cannot get into the water except by way of a very small exposed surface.

These quite opposite types of drinking vessel are about equally popular with poultry keepers. Open vessels catch more dirt and dust but are more easily cleaned. Closed fountains may be used much longer without cleaning, but if allowed to become foul are harder to clean thoroughly.

Placing open drinking vessels on a shelf a foot or more above the floor prevents the hens from scratching coarse litter into them but does not keep out fine dust which floats in the air and settles in the water.

Thoroughly rinsing open vessels once a day and scalding drinking fountains once or twice a week will usually keep them as clean as necessary.

POULTRY

WATCH FOR LICE AND MITES

Unless Parasites Are Controlled They Have Marked Effect on Number of Eggs Produced.

(Prepared by the United States Department of Agriculture.)

Poultry raisers should be on the lookout for lice and mites, for they get busier than ever with the coming of warm weather. Unless they are controlled at this season they will have a marked effect on the number of eggs produced by laying hens, and the number of chicks raised. Poultry houses should be thoroughly cleaned, whitewashed, or sprayed with kerosene or kerosene emulsion at this season. The hens should also be provided with a good dust box, and insect powder should be dusted among their feathers.

Mites usually stay in the cracks of the henhouses and under the roosts in the daytime, where they lay their eggs. At night when the fowls go to roost the mites come out of their hiding places, attach themselves to the fowls, and feed by sucking blood from the birds. To get rid of them the houses should be cleaned and sprayed thoroughly, including the nests, the dropping boards, and roosts. The poultry house that is kept clean and has plenty of sunlight and ventilation is usually free from mites. Immediately after cleaning the house should be whitewashed or sprayed. An effective whitewash is made by slaking one-half peck of lime in 20 gallons of water. Add one pound of salt, previously dissolved, and two quarts of crude carbolic acid, or one gallon of stock dip, and apply the mixture with a spray pump or brush. Kerosene, crude oil, or some good preservative manufactured from coal tar, sprayed about the interior of the house, especially in the cracks and crevices, is an effective means of killing mites. If kerosene is used it is necessary to continue to spray every 10 days or two weeks throughout the warm weather. The effect of crude oil or wood preservative is much more lasting.

Dusting Louse-Infested Fowl.

Inasmuch as lice spend a greater part of their time on the fowls, the most effective treatment is that which is applied directly to the birds. The cleanliness of the house, however, is of equal importance if the lice are to be gotten rid of entirely. The two most practical methods of fighting lice are dusting or using a paste or an ointment. Provide a good dust box containing a mixture of road dust or wood ashes and allow the hens to dust themselves. Dusting the hens by hand is effective and is especially recommended for setting hens and fowls that are very much infested with lice. A good homemade dust or louse powder is made by mixing together one and one-half pints of gasoline and one pint of crude carbolic acid with four quarts of plaster of Paris. Allow it to dry, crush to a powder, and work it well into the feathers by hand.

One of the most effective ointments used to destroy lice is a mixture of equal parts of blue ointment with vaseline or lard. Mix these ingredients thoroughly and apply a small portion (about the size of a pea) to the top of the head, under the wings, and around the vent.

Note—Blue ointment should not be used on hatching hens and small chicks.

VALUE OF BACK-YARD FLOCK

Average Size Should Be at Least Ten Hens to Produce 100 Dozen Eggs a Year.

(Prepared by the United States Department of Agriculture.)

Here are some safe figures about what can be expected of a back-yard flock. Each hen in her pullet year should produce ten dozen eggs. The average size of the back-yard flock should be at least ten hens. Thus each flock would produce in a year 100 dozen of eggs, which, at the conservative value of 25 cents a dozen, would be worth $25. But the 100 dozen is more important than the $25.

Old-Fashioned Idea.

The old-fashioned idea that round eggs would hatch pullets, and long or pointed eggs cockerels, is entirely without foundation.

Use Hens for Breeders.

Don't breed from pullets at all if you can use hens instead.

FOR BETTER ROADS

SPEED GOOD ROADS BUILDING

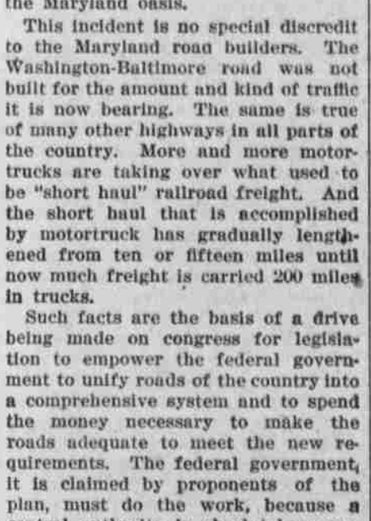
Federal Supervision of Nation's Highways Is Being Urged—Military Value Is Shown.

A few days ago a big government motortruck stuck hard and fast in a rut on the road between Washington and Baltimore. A commercial truck tried to get around it from one direction and another government truck from the other direction. Both of these also stuck. Soon this overtraveled road, for a mile each way, was jammed with squawking cars and trucks. All traffic was stalled for the better part of a day, with the result that war work was delayed, suburbanites were late to dinner and thirsty Washingtonians were unable to reach the Maryland oasis.

This incident is no special discredit to the Maryland road builders. The Washington-Baltimore road was not built for the amount and kind of traffic it is now bearing. The same is true of many other highways in all parts of the country. More and more motortrucks are taking over what used to be "short haul" railroad freight. And the short haul that is accomplished by motortruck has gradually lengthened from ten or fifteen miles until now much freight is carried 200 miles in trucks.

Such facts are the basis of a drive being made on congress for legislation to empower the federal government to unify roads of the country into a comprehensive system and to spend the money necessary to make the roads adequate to meet the new requirements. The federal government, it is claimed by proponents of the plan, must do the work, because a central authority is absolutely necessary to the perfection of a national system of roads.

The federal government should spend the money, they say, because their military value makes the roads a great national asset. This military value of good roads is already shown by the dependence which the government is placing upon them for the moving of troops and supplies. In Europe it has been even more convincingly demonstrated. It has been said that good roads saved France and the lack of them defeated Russia. It is certainly true that the French had the best roads in the world when the war broke out and that the men and supplies which checked the first German rush went forward largely by motor. It is also true that a breakdown of all transportation facilities prevented Russia from effectually mobilizing her tremendous resources.



Sand and Gravel Piled on Subgrade Ready for Use on Experimental Concrete Road, Chevy Chase, Md.

There is now a federal office of good roads, operating under the federal road act, whereby the government appropriates funds for roads, provided the states in which the roads are to be built will appropriate a similar amount. This gives the government the power to recommend the improvement or building of certain roads and to disapprove the improvement or building of others. It may exercise a sort of advisory and mildly compulsory power toward the establishment of a unified national system of roads. But this power, it is argued, is by no means sufficient in an emergency like the present. What is needed is the power to form a definite plan for a system of national highways, and the funds to carry that plan into execution as rapidly as possible.

For this new national system of highways must not only be thoroughly co-ordinated, but must be radically different from that of most of our present roads. The failure of these latter is largely due to the fact that roads which sufficed very well for the traffic of light pleasure cars and farmers' wagons will not stand up under the strain of heavy truck traffic. A truck highway, to meet the requirements now being laid upon it, must be a payed highway with a concrete base. Such a road is very expensive to build; it costs from $20,000 to $30,000 a mile.

DAIRY FACTS

STUDY NEEDS OF LIVE STOCK

Dairymen and Stock Raisers Are Cautioned to Feed Only Balanced Ration to Animals.

(Prepared by the United States Department of Agriculture.)

In order to save feed—to see that none of it is wasted—dairymen and live stock men should study the needs of their animals and see that only the required feed is given in a balanced ration. This is particularly important at the present time, since an increase in feed and more live stock are needed to supply the needs of this nation and the allies.

To reduce the problems involved in the selection of feeds on the basis of their nutritive value—which are measured in terms of protein, carbohydrate, and fat contents—in order to make them apply to every-day feeding, has not been simple. In a bulletin recently issued by the United States department of agriculture tables are given which make the balancing of rations a simple matter of multiplication and division. It is explained that protein, carbohydrate, and fat contents of a feedstuff are not the only factors affecting its feed value. Proteins differ in their nutritive qualities, while some substances not included in the classes mentioned are necessary to the proper maintenance of the bodily functions. The palatability and succulence of a feed has much to do with its value as a feed. Many feedstuffs have physiological effects entirely apart from their nutritive qualities. A ration may be perfectly balanced from the standpoint of relative content of protein and energy producers, and yet be quite impracticable, the specialists point out, because it is too bulky or too concentrated. Consideration of a feedstuff or a ration based only on chemical composition, therefore, is to be taken merely as a guide, it is explained, to be followed in the light of all the knowledge obtainable about animal nutrition.

The selling price of a feed is not a reliable guide to its relative feeding value. The carbohydrate feeds—corn, oats, barley, kafir, and various others—and the protein feeds—cottonseed meal, tankage, and brewers' grains—are found on the market at various prices. The feeder desires to know, with certain given prices, which is the cheapest feed to buy—the true value of a bushel of oats, rye, or barley for feed when corn is worth 80 cents a bushel. He wishes to know the value of a ton of brewers' grains, linseed meal, or bran when cottonseed meal is worth $30 a ton and corn $1 a bushel. By the use of the tables presented in the bulletin, which show comparative costs based on nutritive values, these questions can be answered.

RAISING CALVES FOR DAIRY

Young People Can Help by Caring for Young Animals—Task Is Made One of Pleasure.

(Prepared by the United States Department of Agriculture.)

In the calf club an effort has been made to centralize the energy of the boys and girls in raising and caring for dairy calves. The objects of the calf club are many; the chief one, however, is to develop in the boys and girls a desire to engage in live stock husbandry and at the same time teach them the value of thrift. Many plans of organization have been used in these clubs, but the best one seems to be a plan that provides for the calf to be raised by the boy or girl and eventually added to the milking herd of the parent. In this way the juniors are instructed in all the essentials of the raising and caring for calves and dairy cows, instead of the care of the dairy cattle being a task it becomes a pleasure. The extension department of the state colleges and also the department of agriculture assist in this work.

Dairy Club Boys Taught How to Select Good Milk Producers.

DUAL-PURPOSE ANIMAL TYPE

Some Breeders Incline More to Dairy Breeds While Others Prefer to Develop Beef.

(Prepared by the United States Department of Agriculture.)

As there has been a constant tendency for some breeders to incline more to the dairy type of animals, while others prefer to develop the beef tendencies, there has been, and probably always will be, a wide variation in the types of dual-purpose animals.

Any actress can paint, but only a few can draw.

The sea of matrimony swamps many a courtship.

Women who marry for a home always get the short end of a bargain.