

THE FEEDING OF SOYBEANS TO LIVESTOCK

BY

C. W. HEDGECOCK

Illinois State Normal University, Normal, Illinois

ABSTRACT

The soybean is a native of southeastern Asia and has been grown in China, India, and Japan for more than 5000 years. It is the most important legume of those countries. Although the soybean was first introduced in this country in 1804 it is only within the last three decades that it has found an important place in American agriculture.

Summarizing, types of soybean feeds are as follows:

Soybean Pasture.—Soybeans as a pasture crop are not comparable to other legumes, rape, peas and oats or the grasses. The most satisfactory use as a pasture crop is for utilization when the crop is nearly mature and the beans are starting to harden.

Soybean Silage.—Soybeans can be made into silage successfully if allowed to dry in the field until the moisture content is reduced to 60 per cent. A more successful method is to mix alternate loads of soybeans and corn. Legumes, at best, however, do not make as satisfactory silage as corn.

Soybean Hay.—Soybean hay is about equal to alfalfa in feeding value and is ready to harvest the same season it is planted. A good grade of hay can be made from it at almost any time in its growth, but as the best hay comes from a small stemmed leafy plant, soybeans can best be cut not later than when the pods are small.

Soybean Straw.—Soybean straw in analysis seems to be only slightly lower in feeding value than timothy hay, containing five pounds less digestible nutrients per hundred pounds of feed. The nutritive ratio of the two feeds is about the same. Timothy hay is finer, of course, and usually will be eaten up cleaner.

Whole Soybeans.—Soybean grain contains about 36 per cent protein, 5 per cent ash and 17 per cent oil. The beans are not palatable to pigs and their protein and ash do not supplement the common farm grains well. If the beans are fed in sufficient amounts to balance a ration of corn for fattening hogs (about 20 per cent), the oil of the beans causes a soft pork.

Ground Soybeans.—Ground soybeans have been found slightly superior to cottonseed meal for milk production. In one instance where soybeans formed one-half the concentrate mixture for dairy cows, a soft unsatisfactory butter was produced. A smaller proportion should produce satisfactory results.

Soybean Oil Meal and Soybean Oil Cake.—Soybean meal is greatly esteemed by western dairymen and is an excellent protein-rich feed for swine. Soybean oil meal cake is fully equal to high grade linseed meal as a protein-rich concentrate.

Conclusions.—Soybeans furnish home grown protein feed which is an urgent need on every livestock farm. They yield well, therefore they are an economical feed.

Of the several forms in which a part or the whole plant may be offered the most popular and generally used are the hay and the oil meal. The classes of livestock that make the best returns on certain types of soybean feeds are: Dairy cattle, beef cattle, and fattening hogs on oil meal and cattle and horses on hay. The one main caution to observe is to take proper steps to avoid production of soft pork.