

Stock.

Should we Feed for Fat Meat or Lean?

In view of the position which we have taken with reference to the breeding and feeding of stock, and the remarks we have made with regard to the prevalence of disease, the accompanying illustrations, taken from hogs fed for fat and also for lean in experiments conducted at the Wisconsin Agricultural Experiment Station, under the direction of Prof. W. A. Henry, will be of considerable interest to our readers.

Pigs from the same litter were selected, which were 100 days old when the experiment began, and they were divided into two lots of three hogs each. The object was to adopt extreme methods of feeding, the belief having gained currency that hogs fed on corn, a fatty food, laid on large percentages of fat meat and were liable to disease. Lot I. received a diet that was largely composed of bone and muscle-forming substances, viz., protein and salts, the ration being as follows: 1 part dried blood, 6 parts shorts, and 14 parts by weight of skim-milk, all these foods containing very little fat. On the other hand, Lot II. received nothing but fine ground corn meal, which has a very large percentage of fat and a low percentage of protein and salts. The nutritive ratio of the ration fed to Lot I. was 1:2, and that fed to Lot II. was 1:7.7. Both lots were permitted to take exercise at will, and received all the food they could consume. The experiment lasted 136 days, at the expiration of which period it was found that Lot I., fed for lean, gained 405½ lbs., while Lot II., fed for fat, only gained 291½ lbs.

Upon slaughtering, the carcasses were cut square across between the fifth and sixth ribs, and again at the loin (small of the back). Plate I. in the accompanying illustrations shows the appearance of the meat after the head was removed, the parts having been photographed and painted in order to show the relative proportions of fat and lean. Plate II. shows the cross-section after the cutting between the fifth and sixth ribs was made, and Plate III. shows the appearance at the loin cross-section.

The following table gives the most important

facts in the case, the weights being of the three hogs in each lot:

| Total. | Lot A. Fed for lean. | Lot B. Fed for fat. |
|--------------------------|-------------------------|------------------------|
| Live weight | 669½ lbs. | 561½ lbs. |
| Dressed weight | 541½ " | 451 " |
| External fat | 150 " | 156 " |
| Lean meat | 244 " | 178½ " |

These difference should be borne in mind in considering what follows.

3. The kidneys of Lot A weighed 42 percent more than those of Lot B.
4. The spleens of Lot A weighed 33 percent more than those of Lot B.
5. The livers of Lot A weighed 32 percent more than those of Lot B.

6. The blood (caught on killing) of Lot A weighed 59 percent more than that of Lot B.

7. The hair on Lot A weighed 36 percent more than that of Lot B.

8. The skin of Lot A weighed 36 percent more for Lot A than for Lot B.

9. The large muscles of the back (Ilio spinalis) of Lot A weighed 64 percent more than those of Lot B.

10. The two tenderloin muscles (Psoas magnus) of Lot A weighed 38 percent more than those of Lot B.

11. Thirty-eight percent of all the meat that could be cut from the carcasses of Lot A was fat, while the fat of Lot B was 46 percent of all that could be separated.

12. The bones of Lot A were 23 percent heavier than those of Lot B.

13. The thigh bones of Lot A were 62 percent stronger with the testing machine than those of Lot B.

Similar results have been obtained by experiments conducted by Prof. Sanborn, of the Missouri Agricultural Experiment Station, which have already been published in the ADVOCATE.

Such experiments will, or should, revolutionize the existing methods of feeding in the United States, where little else than corn is fed. (No writer has yet hinted at the condition of the corn-fed men in the Western and Southern States).

There is too much truth in the following remarks of Prof. Henry: "We find of late years that the business (hog-raising) is beset with many difficulties. The pigs at birth are delicate and die easily, the sows are often but indifferent mothers, in some cases even eating their young, while animals of all ages fall easy victims to any contagious malady. The difficulties have grown until now every interested party feels there is no small degree of uncertainty attached to the business. Some tell us that the trouble comes from the so-called improvements, that our stock is bred up too high, and that relief will be found in going back for fresh blood to the old style hog, which, they affirm, was a wonderfully hardy and vigorous animal. Others maintain that our improvement of the breeds is an advantage, and that we should hold fast to all that has been done in this line,

PLATE I.

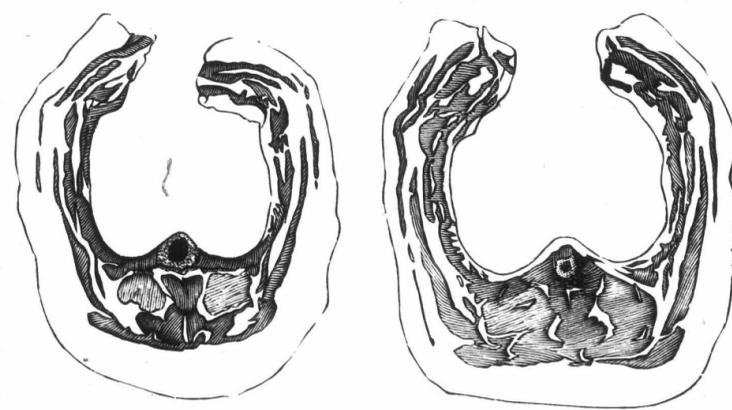


Fed for Fat.
Lot A, No. 1, Carbohydrate fed.

| | | |
|-----------------------------|--------|--------|
| Weight of kidneys | 27 oz. | 19 oz. |
| Weight of spleens | 16 " | 12 " |
| Weight of livers | 146½ " | 109½ " |

Fed for Lean.
Lot B, No. 1, Protein fed.

PLATE II.

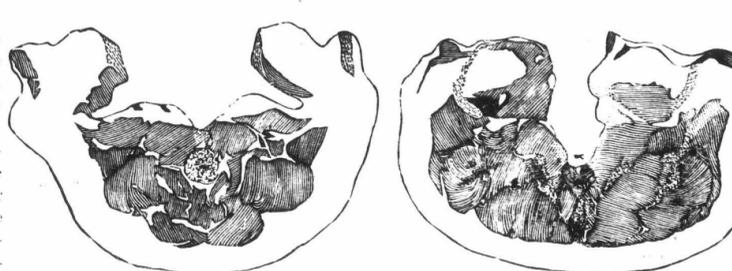


Fed for Fat.
Lot A, No. 2, Carbohydrate fed.

| | | |
|--|-----------|-----------|
| Weight of blood | 296 oz. | 186 oz. |
| Breaking strain five thigh bones | 4550 lbs. | 2855 lbs. |

Fed for Lean.
Lot B, No. 2, Protein fed.

PLATE III.



Fed for Fat.
Lot A, No. 3, Carbohydrate fed.

Summed up in another way, Prof. Henry gives the following as the results of the experiment:

1. The live weight of Lot A (fed for lean) is 19 percent greater than Lot B, fed for fat.
2. The dressed weight of Lot A is 21 percent greater than Lot B.

Fed for Lean.
Lot B, No. 3, Protein fed.

and that relief will be found in going back for fresh blood to the old style hog, which, they affirm, was a wonderfully hardy and vigorous animal. Others maintain that our improvement of the breeds is an advantage, and that we should hold fast to all that has been done in this line,