

## PART V.—MISCELLANEOUS.

**Cooking Food for Swine.** A great many experiments have been conducted with cooked food for swine at the various experiment stations; and for this reason we have done practically nothing in this line of work, with the exception of cooking turnips. Taking the results of tests from different stations, we find many contradictory results, sometimes the cooked food scoring an advantage, but oftener, the uncooked taking the lead. So far as can be made out from the results, it would seem that cooking does not increase the feeding value of meal; and the weight of evidence is in favor of the theory that cooking decreases the digestibility of meal. Potatoes, however, appear to be improved by cooking. Turnips are rendered more palatable by cooking; but it is doubtful whether their feeding value is increased thereby. If it is desired to feed a large quantity of turnips, no doubt cooking is an advantage. In the case of sugar beets and mangels, which the hogs eat readily in the raw state, it is very doubtful whether cooking pays. On the whole, therefore, cooking apparently tends to make foods more palatable in some cases; but its effect upon the digestibility of foods appears to be injurious, rather than beneficial. Potatoes, however, seem to be an exception to the general rule, and are believed to be more digestible, as well as more palatable, when cooked.

**Soaked, Wet and Dry Meal.** So far as can be gleaned from experiments to date, soaking meal for several hours before feeding appears to improve its feeding value. It is doubtful, however, whether wetting the food just before feeding has very much influence. One of the difficulties we have experienced in feeding dry meal, is the prevention of waste, particularly in outside feeding, where a rather large number of hogs are fed together. In such cases, considerable meal is thrown out of the troughs and trampled into the earth. Where only a few hogs are fed together, especially where they are fed in a pen with a cement floor, there is very little waste. Where the meal is fed wet, there is danger of forcing a hog to take more water than it requires, especially in cold weather. This is most important in the case of breeding sows, especially where they are fed outdoors, as recommended elsewhere. For breeding sows fed outdoors, we would recommend dry meal. There may be a waste of meal, but we believe this will be more than paid back when the pigs are born. The whole matter, after all, is largely one of judgment, and calls for careful study of the conditions under which the feeding is done. For ordinary winter feeding, we have had very satisfactory results from mixing the dry meal with pulped roots, and allowing the mixture to stand from one feeding time to another. Both roots and meal seem to be made more palatable in this way. In warm weather, there is much less danger of supplying more water than is required.

**Relation of Live Weight to Economy of Gain.** In various experiments it has been shown that the amount of meal required for a pound of gain in weight steadily increases as the pig becomes heavier. Our experiments with pure-bred swine bring out this point very clearly, as the following statement shows:

Live weight of hogs.	Meal required for 100 lbs. increase in weight.
lbs.	lbs.
54 to 82.....	310
82 to 115.....	375
115 to 148.....	438
148 to 170.....	455

Prof. W. A. Henry, in his book "Feeds and Feeding," gives a very interesting table under this head, which he compiled from the results of many experi-