Every farmer should possess a well-paying flock of poultry. They should be treated in a strictly business way. They should have a snug house, which should be cleaned out every day, the same as the horse stable. Their food should be of the best and greatly varied. Their house should be free from dampness, and with windows that will allow the needed supply of fresh air and sunshine, which are the true disease dispellers. The windows should be arranged so as to close up tight. The time for fresh air supply is in the daytime, not the night. Pay no attention to the people who tell you the poultry house needs lots of ventilation in winter time. If the poultry droppings are allowed to accumulate—a plan neglectful persons follow—the odors naturally create the impression that ventilation is necessary. The main thing to consider in the poultry house in cold weather is how to keep it warm enough—not how to let in additional cold through unnecessary ventilators. A clean house in winter will not require other ventilation than that which it will get during the day, and even then there are cold days when the windows should not be raised.

Wholesome food, composed of a varied diet, and strict and thorough cleanliness are requisites that no poultry raiser can ignore at any season without increasing cost and inviting various ailments. They are health promoters, and the healthy fowls are the only ones that result in profit. The winter returns from a well-kept flock of healthy hens, when all the proper conditions are intelligently observed, will be very encouraging and will prove there is considerable profit in poultry keeping.—*Baltimore Sun.*

# When is a Lamb Fat?

When put into the feed lot under proper conditions, lambs will usually begin to show the influence of good feeding at the end of the third or fourth week. During this time they seem to be getting into good condition for putting on flesh, though it appears that some fat is being deposited internally. Toward the end of that time many of the lambs may be noticed standing leisurely in the sun in a partially stretched posture. This pose in the lambs is a delight to the shepherd. The fattening process seems to extend from the internal regions, and is first in evidence at the tail. It then passes along the back over the shoulder and reaches the neck; from this line it seems to extend down the sides and over the breast in front. There are six main points at which its extension seems most in evidence—at the tail, middle of the back, the neck, the flank, the purse and the breast. Judges of condition handle these different points and seem to arrive at the same conclusion from continued practice in observing the development in any one of them, although a critical examination will reveal that lambs sometimes fatten unevenly, and may be good in one or more of these points and comparatively deficient in others. By feeling the tail-head some will form their opinion as to the degree to which the lamb is fat. Others are satisfied with feeling the back. Many after feeling the tail grasp the neck and base their opinion on the fullness of that part. The flank and breast are often used for further assistance, and some butchers estimate condition from the fullness of the purse. At any of these points, more especially the back, the covering should be such in the prime lamb as to prevent feeling the sharp projections of the backbone. In fact, it can hardly be said that a lamb is really prime unless, instead of a projection of backbone, there is a distinct trough or groove running from the tail to the shoulders, and this covering should extend down over the sides without softness due to excessive fat or oily tissue. All lambs do not fatten as smoothly or as uniformly as herein indicated. In most lambs, however, the worst defect is bareness of the loin and lightness in the hind quarters. With these parts well covered and fully developed, a rather sharp shoulder and peaked brisket may be overlooked. Not only should the flesh be thick over the valuable cuts, but it should be firm. Very often it will be found that soft rough patches will be present about the head of the tail, owing to the deposition of too much flesh on the back, which may slip from there on the over-ripe lamb and gather at the flank or along the sides in long, soft rolls.—*Prof. John A. Craig.*

# Liming Grass Land

In Bulletin 58 of the Rhode Island Station some valuable information is given as to the financial gain from liming grass land. The lime was applied in the year 1894, one ton per acre, at an expense of $7.50. A limed tract of land and an unlimed one were treated annually to an application of complete fertilizer. This fertilizer was alike in its nitrogen and potash content but varied in the character of its phosphoric acid, nine different forms being used. The aim was to determine the value of lime, and as well the relative value of various forms of phosphoric acid in connection with lime. The yields of hay are for four years beginning with 1896. The average gain per acre for the four years from the one application of lime is 10,958 pounds of hay. Allowing for the shrinkage of hay and cost of lime the net gain from the use of one ton of lime per acre in 1894 in the four crops of hay (1896-99) averages for all the various forms of phosphoric acid $45.10 per acre. Contrary to current ideas the acidulated phosphates were more helped by lime than the unacidulated goods.

The bulletin concludes: "In view of the fact that many deficiencies of lime nearly approximating or exceeding that found in our own soil have been found quite generally in other portions of the state it must seem astounding if, in the face of those results, more farmers do not begin to use lime even though the first cost seems to them forbiddingly great."

# Vitality of Draft Stallions

The importance of breeding horses from strains which are known to be sound, healthy, and long-lived, cannot be too much insisted upon.

There is a tendency in these days to sacrifice a good many things for showyard honors, and among them not infrequently the constitution of a valuable stud horse. The law of heredity works with great force in the equine race, and, therefore, defects and weaknesses, either of conformation or constitution, which appear in the sire or dam, are pretty certain to be reproduced in the offspring. A sound mare bred from sound parents and grand-parents mated with a stallion bred likewise will, in the ordinary course of things, produce a sound horse, and sound horses are always saleable, if not for the show ring, at least for the shafts.

In horse stock it is curious to notice the certainty with which little peculiarities of sire or dam appear in their progeny. For instance, a rat-tailed parent will almost invariably breed stock which are thin-tailed, and the writer knew a mare whose stock could be identified by a peculiar shape of the points of the ears. The strain imposed on the fashionable sires of to-day is very great, and especially so if they are exhibited to any great extent. The feeding-up process, railway traveling, and showyard drafts, all tend to have an injurious effect on the health and life of the strongest horse; and yet there have been, and are still, sires which have stood this for years, and proved themselves capable of producing sound and valuable stock. The most notable instance of a long-lived Shire stallion is unquestionably that of Lincolnshire Lad II. 1365 (and Argus will remember that he was a son of the late Mr. Drew's Lincolnshire Lad 1196 or K.). This grand stock horse was, I think, twenty-four years old when he died, and was a a success at the stud up to the very end. It is hardly necessary to say that his descendants literally "hold the stage" for prize-winning, for real worth, and, I think, for vitality.

Another Shire stallion, i.e., Bury Victor Chief, must also be possessed of a sound interior and any amount of vitality.