

Libe Stock.

Hints to Old-Fashioned Butter Makers.

Don't imagine that because you generally make good butter from your shallow-pan setting, that this is the best method. So far as quality is concerned it is all right, but, as a rule, it is not economical, too much cream being wasted. Deep setting is more economical—the separator is still better.

Always use a thermometer to temper the cream before churning. The old-fashioned way, which is still so often used, of guessing at it by sticking in the finger, is unreliable—too often widely misleading. A good thermometer is the only safe way.

Although good butter can be made with the old dash churn, it is a laborious method, and it is far more inconvenient to operate than the barrel or box churns. In the old dash churn, you skim the butter out—in the other you draw off the milk. The former plan requires so much working of the butter to remove the milk that it becomes salvy—the grain is destroyed and the value decreased. In the box churn, every trace of milk can be removed without any working, by two—sometimes three—washings.

Find out how much salt your patrons like in a pound of butter and then weigh it out at every churning. The old guesswork plan is a most vicious one—there is nothing more unreliable, and butter made under it will be found to vary from one to three ounce of salt to the pound.

Partially filled tubs of butter should have an inch of strong brine on the top of the butter, removing it carefully before more butter is added, then returning it. This keeps the air from the butter and prevents any changes. The butter will not absorb any perceptible quantity of salt from the brine.—*American Agriculturist*.

Go where you may, and you will seldom if ever, find a breed of live stock with the same characteristics, the same type, as existed even a few years ago. We do not attribute these changes, be they for better or for worse, wholly to the influence, and as a result of variation. Yet it is true that to variation should be attributed some measure of the successes so manifest to the intelligent breeder of modern times. What is meant by variation? The universal underlying principle of all breeding is, that like produces like, yet we see on every hand noticeable exceptions to this axiom. It may occur that we have seemingly taken every precaution in mating, that we secure either a young animal inferior to the parents, or one far superior to either sire or dam. That is, we see in the progeny a more or less strong tendency to vary from the original type. Now the valued feature of this possible variation to us is this: Should a more desirable type of animal be produced than we had in the parent, the intelligent breeder at once seeks to encourage this tendency to vary in the desired direction, and at the same time attempts to fix the new type by the law of heredity. These facts have been substantiated, and have been found useful in actual practice. Nor do we need to be content with waiting for chance to bring about desirable variations. We can so govern the environments of the farm animals that we may be reasonably certain to secure desirable variations in our young stock.

It is easy to muddle the novice with a variety of advice, and to get away from the possibility of doing that I wish to offer the following hints as the most valuable and concise that occur to me. Study your farm conditions and learn exactly what sheep will thrive best upon it. If you are not able to purchase even a small flock of pure bred or high grade sheep, then put all you can advantageously to a pure bred ram, and after that do the best you can in ewes. Start

right even upon a small scale. The sheep will rapidly increase. In purchasing a ram get one fully developed, strong in bone, straight shaped and thoroughly typical of his breed and sex. I have always had an intuitive liking for a lamb that will leave a group of his fellows in the field and boldly front you. Do not purchase sheep that you have no trust in for proper development. It is only the experienced breeder who can forecast development. Never take an ill-doing sheep even if it is cheap, with the expectation that it will become right. In selecting sheep, handle them so that you may know how much of their form is due to themselves and how much to the servers. Select as critically as you can to a chosen type. Uniformity is a cheap feature for you to buy and yet a valuable one in a flock. There is no sheep that embodies perfection in sheep qualities. Judging between different sheep is a checking of weakness and a balancing of qualities. Be inclined toward the sheep that appears better every time it catches your eye. The purchaser will find it to his interest to select from the field for the show. The best time to buy is usually in the fall. Provision may be made with the seller to have the ewes served by a ram of different breeding from the one you buy, and thereby you add another season's use to the ram of your flock.

THE American Shepherd, says the *Weekly New York Times*, must improve his methods of cultivating the food crops for the flock. The sheep does not get sufficient care to make it as profitable as it might be. Not one sheep in a thousand is supplied with the right food for the nutrition of the fleece. There is no other food so useful for the growth of wool of the best quality as are the plants of the turnip tribe, the turnip itself, the cabbage, mustard, rape, and the clovers, especially the white clover. Wool contains only one kind of mineral matter, which is sulphur. Its composition is much the same as that of flesh, hair, horn and skin. But it has more sulphur in it than any of these. It has about one-sixth part of nitrogen, and hence the supply of these two important elements in the food is paramount to the growth of the fleece. This is to be taken account of when the provision for the winter feeding of a flock is thought of. But quite as much so as to its pasture. The sheep, too, is only to be maintained in the best condition by succulent food. It is naturally given to constipation of the bowels, and this, of course, is quite inconsistent with that condition of health on which the growth of the skin and fleece depends. So that for its flesh and wool both the very same kind of feeding is imperative, and that which will secure the best growth of the carcass will equally insure a good fleece. The finest carcass of mutton must have the finest growth of wool. They go together, and if one fails, the other must fail with it.

The Poultry Yard.

November in the Poultry Yard.

If the poultry house has not been thoroughly repaired and cleaned, and the flock warmly housed and settled for the winter, it is imperative that it be done at once. If not, the fowls had better be killed and marketed without delay, for all hope of profit is gone.

A hen will not lay—in fact she cannot—if it takes all she eats to keep her alive. A certain amount of every ration has to be applied to keep her warm and to nourish her body. It is the surplus over and above this that she turns into eggs. If there is no surplus there are no eggs.

To lay freely, the hen has to be in good health, her blood pure, her whole system in good working condition. If the house is filthy and full of unwholesome odors the fowls cannot remain healthy. With every breath, while

confined they absorb poison; they become weakened and soon disease of some kind carries them off, and the profit goes with them.

If the cockerels of the early hatches have not been sold, do not delay doing it any longer; they will not pay for the food which they will consume. What is saved is so much easily earned, and the feed these cockerels would need will keep nearly as many laying pullets.

When housing the pullets for winter, do not put too many in one house. If not fully grown the proper number will not seem to fill up as the house should, but as they grow they will occupy more and more of the space. Eight square feet of floor space is none too much for each fowl, and ten would be better.

Clean out the droppings often enough to keep the house sweet and clean. Use plenty of plaster under the roosts. A sprinkling of air-slaked lime over the floor will do good, but do not put it under the perches, as it will hasten the escape of the ammonia and lessen the value of the droppings.

The pullets should be laying well now, and paying for the care and feed they have received. Keep fresh water, shells and grit before them always. It will cost no more to feed a variety than one kind of food. Corn in small quantities, wheat, oats, barley and buckwheat, both whole and ground, bran, or middlings, or both, make a list from which a change can be made at nearly every meal. Green stuff and cut bone are essential to the best success after they have to be wholly or partially confined. An open shed in which the hens can scratch and sun themselves will pay a big dividend during the next six months.

If any rubbish has collected in the yards or about the houses, collect and burn what can be burnt, and bury the rest out of sight. If any of the yards have not been plowed yet, to turn under the soiled surface, it can be done now, and early in the spring oats can be sown and harrowed in. It always pays to have plenty of green stuff provided for. The rye that was sown in September should make good picking for the hens now and until covered with snow.—*American Agriculturist*.

Over-feeding Hens.

THERE is as much injury done to a flock of layers by over-feeding, as by not feeding enough. Keep their appetites sharp to make them active, not lazy. Laziness is not conducive to productiveness, and is a habit easily contracted from too much attention at feeding time. Winter weather usually creates a good appetite, but this should not be over-indulged in, and laziness replace good laying qualities. Activity must be had to induce laying.

Do not wait too long before mating your fowls for spring breeding.

Be sure that your birds have plenty of fresh water before them at all times.

It is a question which is the worst, poorly fed or over fat hens. Neither of them will produce many eggs.

Which will you have, eggs or lice? Make your selection, and remember you cannot have both in the same poultry yard.

The show season is now upon us, and this is also about the season of the year for a new crop of poultry papers to hatch out.

Exercise is necessary to keep the birds hardy and healthy, and is certainly essential to egg production. Provide plenty of good, clean litter.