

get to examine every potato leaf for the eggs. If these are destroyed before they are hatched, there will be a very poor show for the next brood of beetles.

Second. If the eggs are hatched and the larvae are so numerous that picking is too slow, take of *Paris Green* a good tea-spoonful, put it in a bucket full of water. Mix thoroughly. Then apply, sprinkling with a wisp or brush to the potato tops, keeping the water well agitated. Don't breathe the dust of the *Paris Green*. Remember it is deadly poison to human life as well as insect life, if absorbed in any considerable quantity. It is an arsenite of copper, containing, if not adulterated, about 60 per cent. of arsenic, to which its effectiveness is due. London Purple, an arsenical compound, is also recommended, as well as a few other materials. But *Paris Green* appears to be the most effective, and, with ordinary care, should not be dangerous. The principal well sustained objection to the use of these poisons is that they kill also the insect parasites which attack the Colorado beetle. It is claimed that fowls can be taught to eat the larvae of the beetle, although they do not like the flavor of the insect at first. Various other receipts are given, in agricultural papers, which the farmers can experiment with. However, the methods of *picking* and *poisoning* by *Paris Green*, have, so far as the best authorities state, been generally found the most effective.

#### IMPROVED DAIRY BREED.

[Quality of milk alleged to be determined by the sire, and the quantity by the dam.]

The transmission of quality of milk by sire and quantity by dam is quite remarkable in the cross of Jersey bulls bred to Ayrshire cows. D. E. Wheeler, of Lake View Farm, Natick, purchased of me a daughter of the Ayrshire cow, Martha, an animal that has given her own weight of milk in each twenty-two days during five months after calving. The sire of the Jersey Wheeler cow was Duke, a son of the Jersey cow, Dairy Maid, an animal that has made 18 lb. of butter in a week. Martha's milk was such as is best appreciated by vendors of milk, carrying but little cream, though rich in casein and well adapted for use in hotels, restaurants, and city households. Yet the Wheeler cow with Jersey sire and Ayrshire dam has made 356 lb. of butter in twenty-seven weeks, besides furnishing milk for household use in a family of seven, who were not stinted in quantity consumed nor confined to skim-milk. For five months and twenty-two days after calving this Wheeler cow gave an average of 19½ quarts of milk per day.

Cannot the American breeder produce a race of cows by crossing these two estimable breeds, the Jersey and the Ayrshire, that shall stand at the head of all the breeds as butter makers? To-day a Jersey cow stands or falls on her record. Dairymen and stockmen as well demand merit with pedigree. At the present time the Ayrshire cow is found on the milk-producing farms adjacent to or within reach of city markets, and from which the city milkman draws his supplies. As stock for thoroughbred purposes, my opinion is that the Ayrshire are losing ground in the vast dairy sections devoted to butter making. Yet I see for these same Ayrshires, if top-crossed by Jersey bulls, the foundation of a magnificent race of cattle, their milk converted into gilt-edged butter and their steers into fine beef.

Were ten farmers, for instance, to make a compact to inaugurate and carry forward such a movement, discarding and not recording any female that yielded less than the 16-quart minimum of milk, and agreeing not to use any bull of the cross the milk of whose dam produced less than 14 lb. of butter per week, and by exchange and use of bulls of same age as the heifers, until the desired results be accomplished, in six years these ten farmers would be well rewarded for their labour and outlay, and would occupy enviable positions among breeders of fine cattle.

I am able to furnish another illustration of this theory of favourable influence of the sire in the matter of quality of milk in the case of a daughter of a Jersey sire out of a Dutch cow owned by the same D. E. Wheeler before referred to. The dam of the heifer mentioned, a Holstein cow, was noted for quantity rather than quality of milk, yet the half-bred cow from her gave, during the week from June 18 to June 24, inclusive, 171½ quarts of milk. This cow was tied in the barn five nights out of the seven. The last half of the week referred to was very hot. Having no special conveniences for setting this milk, Mr. Wheeler could not secure the best possible butter yield, yet 18 lb. and 9 oz. of butter was made from the 171½ quarts of milk, thus showing the milk to be only a fraction poorer in quality than the average Jersey milk. Of the latter I believe 8.62 quarts is estimated to make a pound of butter, while of the Holstein cross more than 9 quarts of milk were required to make a pound of butter. For the week, June 27 to July 3, inclusive, this same cow showed the following milk record:—Tuesday, 28½ quarts; Wednesday, 30 quarts; Thursday, 30 quarts; Friday, 26½ quarts; Saturday, 26½ quarts; Sunday, 26½ quarts; and Monday, 29½ quarts—or an aggregate for the week of 199½ quarts.

This remarkable yield was secured without the feeding of any cotton-seed meal, though it is claimed that such a feeding would have materially increased the yield. The cow was milked three times a day. As a test of the richness of the milk drawn from this cow, July 4th, the 8½ quarts given by her at the noon milking was set for thirty-five hours, then skimmed and made at once into butter, and weighed by J. A. Mabley in my presence, the result being 1 lb. and 3 oz. (down weight) of butter. On the same basis the 199½ quarts of milk yield for the previous week would have been equal to 26 261-343 lb. of butter for the week, which is the best record yet seen by me. If the use of a Jersey sire with Dutch cattle can produce such results, surely then we may say that the male begets quality of milk, while in this instance none will deny that the dam controlled the quantity of milk yielded by her offspring.

My position may not be invincible on the general principle I assert, yet the two cases described give convincing proof and furnish interesting and striking examples of the position taken. I. K. FELCH, Natick, Mass, July 11, in the "*American Cultivator*."

BONES AND OYSTER SHELLS FOR POULTRY.—An entertaining writer on the poultry question says: "I supposed I did my duty by my hens when I burned bones to ivory whiteness, ground them to the consistency of flour, and fed them occasionally, with the idea that I was giving them egg shells in a valuable form. But I did not consider that the gelatine, the fat, and other constituents of the bones which were discharged by the internal heat (leaving only a little pure lime) were really the richest possible food for the hens and the greatest egg producing diet that could be furnished them. My new tenant only bakes them, more or less brown, in an old tin plate on the top grate of the stone oven. This is not a very pleasant process, for, like all scorched portions of the animal frame, they gave a pungent, half-suffocating smell, which tempts you to 'clar de kitchen' till the fresh air from doors and windows has sent the objectionable odors into outer space. But you soon become reconciled to this invasion of ill scents when the fiery combs, the ceaseless cackle, the evident high health of your fowls and the daily filled egg baskets show you what they have accomplished. No other food, not any amount of food, if this is left out, will give you such returns; and this baked bone, pounded with a hammer on a rock in your poultry pens, and fed with ordinary feed, will give results that ought to satisfy the most craving disposition.