

makes up the mixtures as above, and the fowls object but little to some of that mixture in their mash.

The foundation of the mash is the cooked vegetables, which may be the small potatoes, beets, carrots, turnips, onions, (anything in the vegetable line) and into the pot goes the table waste, potato parings, etc., also the potato, squash, and apple parings from the kitchen. The potatoes and beets, etc., are washed before putting them into the kettle to cook, and the mess when boiled is sweet and savory.

If one has a set-kettle in which to stir up the mash and there leave it to cook in its own heat and the heat of the brick work, he is fortunate. He has not one, but makes it up in common water pails (or buckets). The vegetable or clover kettle is put on before sitting down to dinner, usually, and another kettle of water to be boiling hot when wanted. When vegetables are cooked he sets out 4 buckets in a row, dips out the vegetables into the buckets about equally, mashes them thoroughly, adds the salt—always—and the condiment of the daisy, adds boiling water until the bucket is two-thirds full, then stirs in the mixed meal till it is stiff and firm; then covers and sets it away to cook in its own heat.

Clover rowan (second crop clover) cut fine makes an excellent foundation for the mash and two or three days of the week in winter he uses that instead of vegetables. He fills two kettles with the cut clover and as much cold water as they will conveniently hold and brings it to the boiling point. The clover is then ladled out into the buckets in equal proportions the clover tea added and boiling hot water as before, then salt and add the stimulating condiment and stir the meal in. This mash, you will notice, contains a great variety of food elements, and this variety is quite an important factor. A fowl needs a variety of food to supply her various physical needs, and give her a surplus out of which to make eggs, and this "variety" of food he thinks he can get in the manner he describes as above. An additional advantage is that a tonic or stimulant can be added when desired; he sometimes substitutes a teaspoonful of tincture of iron for the condiment, and sometimes adds a handful of linseed or cottonseed meal; but the latter are rather fattening (as well as stimulating) and those who feed it must beware of too fattening foods.

Some poultrymen make a practice of stirring

up the mash scalding hot in the morning and feeding it at once. In that case, the meals are simply scalded—not cooked. By this method the meals are semicooked and are more immediately available for assimilation; therefore he prefers making up the mash the afternoon of the day before and having it partly cooked when fed, rather than feeding it hot but only scalded. His morning mash is fed in a trough large enough to let all the fifteen fowls in each pen get about it at one time; another important thing, because if the trough is small, some of the birds have to stand back and wait for a second table, and when their chance does come there is nothing left for them. With a trough four feet long by six inches wide there is plenty of room, and if a hen is driven away from one place she runs around and goes to eating at another, and thus all get a share.

His fowls have exercise ground in summer in yards 125 x 12 feet, which gives them a grass run (with growing grass always in the growing season) and they take ample exercise in fine weather. To keep them out of doors, the noon feed of whole barley (or buckwheat) and night feed (before sunset) of wheat scattered on a gravelled space immediately in front of the houses. Each family of fifteen has a pen within the house twelve feet square, or one hundred and forty-four square feet of floor space, which gives about ten square feet per fowl. The floor is the earth covered with six to eight inches deep with screened gravel. On this gravel the grain is scattered in stormy weather in spring, summer and early fall, when he wants his birds to stay indoors. When cold weather approaches exercise must be stimulated and he covers the pen-floors three or four inches deep with chopped meadow hay or chopped straw into which the grain is scattered and the hens have to dig it out. Forest leaves or orchard leaves, dry, make a good litter and are used by many poultrymen. Chaff from the threshing mill is most excellent and in a few cases common corn stalks finely cut answer the purpose very well; but the best of all is the waste from the hay mow, particularly clover chaff, as they get the seed which is a splendid egg producer. That the litter which goes into the scratching pen is of far less importance than the material is there for the fowls to use.

Whole wheat is the best grain food for fowls, whole barley is the next best and buckwheat next. He makes barley or buckwheat the noon food five days in the week and wheat the night food, five