

# Farm and Home.

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### All Around the Farm.

#### GRINDING AND SOAKING GRAIN.

A most important experiment was conducted last year at the central exper farm, Ottawa, Ont., by Dr Saunders, in the feeding of swine. The experiment began with 24 swine of an average weight of 67 lbs each, divided into four pens in duplicate, making eight pens of three pigs each. The experiment lasted 17 weeks. The pigs of each of the four lots were very even in breeding, age and character, so that the outcome is of much interest to all feeders. All lots were fed on a mixture of peas, oats and barley equal parts with one-half part wheat bran.

Lot 1 was fed on this mixture unground and dry, with cold water in a separate trough, so they could drink at will. At the completion of the experiment it was found that it took 4.08 lbs feed to each pound of gain in live weight. Lot 2 was fed the above mixture unground, but soaked for a period of 20 hours before feeding. For this lot, 3.88 lbs feed was required for each pound of gain in live weight. Lot 3 was fed the same mixture ground and dry and 3.76 lbs feed was required for each pound of gain in live weight. Lot 4 was fed this mixture ground and soaked for a period of 20 hours. This lot required 3.56 lbs of feed for each pound of gain in live weight.

It will thus be seen that soaking the unground feed saved in the 14 weeks of the fattening period 1960 pounds feed, worth about 15c, which amount was all that went to pay for the trouble of soaking. Grinding the feed over feeding whole saved 71% lbs feed worth about 25c, which amount was all that went to pay for grinding. As the pigs fed during the period on whole grain ate 500 lbs, the grinding of that amount of grain would cost ordinarily 60c, to say nothing of the cost of drawing to and from the mill, if no mill for grinding was on the farm.

My own plan of feeding is quite different to the plan followed at the experimental farm. I feed largely of roots, turnips and potatoes, in the proportion of as a general rule 40 per cent of the dry matter in roots and the remaining 60 per cent of the dry matter in grain or mill feed. And this is in unison with the Danish rule in feeding thin, choice, bacon hogs. The Danes have found by repeated experiment, not only in practice among

the farmers, but in a repeated series of experiments at the Copenhagen exper sta that bacon hogs of first quality may be fed successfully on a ration in which 40 per cent of its dry matter is roots. By various experiments at Copenhagen and corroborated in this country, it was found that 4 1/2 lbs potatoes (boiled) equaled 1 lb grain and 8 lbs of roots, mangel and turnips (raw) equaled 1 lb grain and meal. My favorite ration for feeding animals and shotes is: 300 lbs turnips, 25 lbs whole barley and 12 1/2 lbs wheat bran. This ration contains 68 lbs dry matter, 6 1/2 lbs protein, 46 lbs sugar and starchy matter, and 14 lbs fats. The above is enough for 25 pigs of an average weight of 125 lbs each, two feeds, or one day's ration for 25 hogs. The third feed which the hogs receive either at noon or at night is whole oats (dry), about 1 lb to each individual hog. This ration is steamed and fed warm.

I have abandoned boiling feed and have substituted steaming. The burning of the feed, which often takes place when boiling, is not felt when steaming, neither is the loss by distillation which always occurs during the boiling process felt when steaming. I have a new and improved steam boiler. I first divide the 25 lbs barley between two barrels, then put in the nozzles of the hose, then fill barrels with turnips, only the large ones split or quartered. Attach a hose from engine to each nozzle in barrels, and allow to steam until done—about 50 to 70 minutes. When done, dump contents of barrels into a large tank, the bran (12 1/2 lbs) is then added and all is intimately mixed with an iron shovel. This mixture will keep warm for 48 hours if well covered.—[J. A. MacDonald, P. E. I.]

#### PLANT ONLY PLUMP SEEDS.

A seed selecting table is a great convenience for those who desire to look their seed over during winter and select only the plumpest and best for planting. The Ont exper farm at

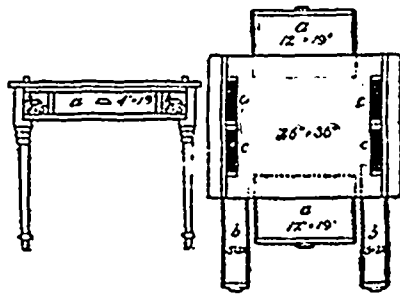


TABLE FOR SELECTING PLUMP SEEDS

Guelph uses such a table, a sketch of it is shown herewith. It is 26 by 36 in and is fitted with four drawers, as shown in the right-hand figure. A quantity of seed is placed upon the table, and the drawers, a, a, are drawn out 1 or 2 in so that the operators seated on either side of the table can draw the good seed into them while the inferior seed is shoved into the drawers, b, b, through the openings at c. The drawers, b, b, remain closed excepting when taken out to be emptied. The top of the table should be of polished hard wood so that the fingers can slide the seed over its surface rapidly. The table is 30 in high, drawer a being 12 by 19 by 4 in and b a by 22 by 4 in. The surface of the table is 26 by 36 in.—[Prof C. A. Zavitz.]

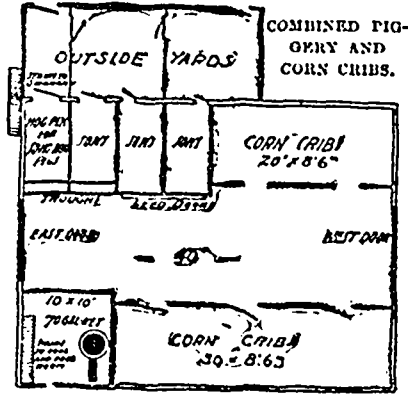
#### KNOW WHAT YOU WANT.

Salmon said, "of making many books there is no end" and if he had lived in this latter end of the 19th century he could have added with equal truth, "of making farming tools, there is no end." If a farmer thinks of purchasing a new machine, he of course visits the implement stores, and here a new dilemma stares him in the face. Among many different kinds it is hard to decide what one does want. The best rule, perhaps, would be to buy only what is needed, really needed. For instance, an implement dealer wished to sell me a stalk cutter. Now I could use one this year, but perhaps it would be several years before I would have use for it again. If I ever did, it is not the best method to have stalks cut. One of the indispensable implements is a breaking plow. I use a walking plow of a well known pattern

and it is all right, but there are plenty of others. An iron beam plow will give the best satisfaction, because it has greater throat capacity. The points to be considered in buying a plow, either riding or walking, are, first of all, adaptation to soil, an all-st plow comes the nearest filling the bill in this particular; second, ease of draft; third, ease of management. The simpler of construction they are, the nearer will they come to my ideal.—[A. N. Springer, Dighton Co, Ind.]

#### A HANDY FARM BUILDING.

My combined corn cribs and piggery is a very convenient arrangement. This cold winter weather my 70 gal feed cooker comes in right handy. We warm

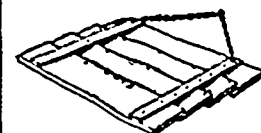


or boil all our small potatoes and other vegetables, milk, etc, in it. The kettle is filled at night, a couple of chunks of wood thrown in, the fireplace closed tight and in the morning the feed is nice and warm. Also use the Kettle to try lard, heat water to wash harness, etc. The slop barrel is in the recess back from the hogpens, out of the way in driving through the building.

The building has 14 ft posts, so there is a room over the cooking quarters as well as over the hogpens. For ground feed, I use oats and corn. There is a yard for fattening hogs at the west door and in it a platform for feeding corn. The building is 20x40 ft and has roller doors. The room over the cooking quarters, besides being used for tools and preparing feed, is also used for butchering. Hooks for harness cleaning are between the chimney place and stairway in the cooking room. The outside stairs, shown in the upper left-hand corner go to the granary over the hogpens, where ground feed is kept.—[R. L. Holman, Clark Co, O.]

In Treating Wheat for Loose Smut, soak the grain in cold water four hours, then set away about four hours more in wet sacks and then soak for five minutes in water at 132 degrees. To prevent both the smuts affecting barley, the grain should be soaked the same as for wheat smut described above and then treated five minutes with water at 130 degrees. Just how to immerse the seed in hot water was illustrated in our last issue.

To Make a Plank Drag, spike 3 or 4 planks together. Lay the first plank



on the ground, raising one edge about 3 in. Lap another plank onto the lower edge of it about 1 in and the third onto the 1 and the same way. Cut some pieces of 2 by 6 to hold them in that position and hitch to it by chain and clevis. It may be weighted down to suit the work to be done. As a clod crusher and leveler it is better than any other tool.—[C. E. Kittenger, Edmunds Co, So Dak.]

To Make Pure Ice, have a number of tin boxes made 1 ft deep, 12 by 15 in square and 1/2 in larger at the top than bottom. These boxes may be bought as cheap as sap pails and will last many years if taken care of. Make a frame by sawing boards 8 in wide and 2 ft long, nail strips of board on the upper end, set it level so it will not tip over, or boards laid level will answer every purpose, only it will not freeze as fast. Fill the boxes within 1/2 in of the top, to give room for the ice to drop out. When sufficiently frozen, tip over the

boxes, pour a little hot water on the outside, and the ice will immediately drop out. Fill the boxes again and so continue until you have ice enough. You need not wait until the water is all frozen, as being frozen on all sides alike it will finish just as well standing on the frames. Anyone having a good well, spring or clean brook can get pure ice fit for any purpose cheaper than drawing dirty ice from any distant creek, pond or river, and as it freezes on all sides alike there will be enough cold weather any winter to freeze it.—[S. M. Stolenbur, Bradford Co, Pa.]

Fertilizing Pays—I have a 108 a farm, 100 a under cultivation. Since using fertilizers have increased my hay crop from 5 to 50 tons, wheat from 15c to 650 bu, oats from 500 to 800 bu, corn from 900 to 2300 bu. I keep three times as much stock as I did the first 3 yrs on farm, and haul out over 100 tons of manure each year, where I used to have not more than 30 tons in a year. I am satisfied that the use of fertilizers not only increases yield of grain and straw, but grain is plumper and matures from 10 to 20 days sooner. The grass seed makes a better catch since using fertilizer than it did before. I also can show fields that were manured and fertilized with striking results. I have used 24,300 lbs fertilizer and it has paid well on every crop used.—[Philo C. Smith, Stark Co, O.]

Broom Corn is so high in price many will doubtless plant a large acreage this year. The '99 crop is practically all in the hands of a trust. If I lived on a farm in Tex or La, I would plant broom corn early so as to get it on the market at the earliest day possible, fully six weeks before it would come in competition with that from the middle states, but as I live in Mo, I will not plant any. I predict a large acreage of broom corn will be planted and sold this year at \$50 p ton.—[Jacob Faith, Mo.]

The Soil Requires light, heat and moisture for the best development of plant growth. Physical conditions therefore have much to do with the rapid growth and perfect maturing of field crops. A hard, compact soil will be the cause of plants dying outright, or the stealing of light and moisture by foul weeds may reduce the crop below the point of yielding a profit. If the soil is not made mellow and friable there cannot be a perfect mixture of light, air and warmth, which are essential to perfect germination of seed and development of the plant. Light soils not kept covered or mulched with fine earth afford too rapid evaporation, causing plants to suffer. It is a matter of greatest necessity to have the soil prepared in the best possible manner before planting or sowing seed. Our readers look out for their interests best who employ the best means of bringing about these desirable conditions. There is a well known tool which has long been upon the market and which has been thoroughly tested with satisfactory results under practically all conditions, in all varieties of soil, which will produce the desired condition of soil. We refer to the well known Acme pulverizing harrow, clod crusher and leveler, manufactured by Deane H. Nash of Millington, N J, an Chicago, Ill.

In making presents, too much is put into and on our bodies, while too little is expended for that which cultivates, stimulates and enriches our mental and spiritual life. My notion is that F & H at 50c for 24 numbers makes the biggest number of presents for the least cost of anything that can be bought.—[Jacob Faith, Vernon Co, Mo.]

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