

## DIFFERENT TYPES OF SILO CONSTRUCTION EXPLAINED

(By R. A. Ward.)

There is a variety of silos on the market, built of different materials and all serving the same purpose, namely, to store up green food. It is a problem of economy for each farmer to decide just what material he is going to use and what kind of a silo he is going to build. It is, of course, needless to state that there are many good silos made of wood, concrete, brick and metal, and no one type can be said to be the best. There are, however, several essential features of silo construction that should be observed in building any kind of silo and a few of these points are mentioned here.

**SHAPE.** The silo should be built cylindrical in shape, or nearly so. The surrounding wall thus encloses the greatest amount of space, and there are no corners, so that silage can be packed firmly around the wall insuring less spoilage. The wall should be perpendicular and smooth to permit of even settling without leaving air pockets.

**EFFICIENCY.** The wall should, of course, be practically air tight, and should be sufficiently non-conducting to prevent excessive freezing, especially so when the silage is to be fed during the cold weather. The silo is really a large tank or cistern for the preserving, chopped up green food in a succulent form. There is one fundamental principle which must be observed in silage making. The feed must be kept away from the air, otherwise it will mold and decay. Thus the nearer air tight the walls are the better the silo and the better the silage. It is a proven fact that air tight walls can be constructed from a variety of materials. The water of the green food or added water aids in the exclusion of the air so that the walls should be constructed in a manner to make them not only air tight but water tight. If the walls absorb large quantities of moisture they draw out moisture from the silage and allow mold to develop around the walls.

**DURABILITY.** The material to be used for silo walls should not only be of a character which will insure efficiency in keeping silage but should also be of a durable nature. The silo is rather expensive in any material so that the material that will last over the longest period of years and gives satisfaction, will be the cheapest in the end even though the first cost is slightly

greater. A silo which is weather, storm and even fire proof is a great asset, as farm buildings, as a rule, are not insured heavily, if at all. Such a structure with nothing about it to decay or need replacement after a few years' use, will need much less care and attention, which will add much to the satisfaction and decrease the expenses of the owner. A permanent structure of any kind is a good indication of the judgment and foresight of a business farmer.

**COST.** The silo which will give the most and best service for the least money is the kind to buy. First cost is however only one of the factors to be considered. Cost of upkeep and period of usefulness should also be figured on. It is therefore possible that some types of silos, although their first cost may be greater, are really a better investment if their annual cost of upkeep is small and their period of usefulness, due to durable material used, extends over a long period of years. Upkeep is quite a factor when we stop to consider that the silo is generally empty during most of the trying season, and when labor is scarce due to urgent farm work. It is work that is too often put off or forgotten. Such neglect proves expensive with silos, which demand attention.

**CONVENIENCE.** The above ground types of silos are generally considered more convenient than the below ground type. It is easier to throw a silage down than to throw it upward or elevate it. The continuous door is also more convenient than the intermittent, since the opening is always nearer the level of the silage, and therefore requires less pitching up over the door. It is not desirable with above ground silos to go more than five feet below ground or to exceed 18 to 20 feet in diameter for convenience sake.

**ATTRACTIVENESS.** Any properly constructed silo adds to the attractiveness of the farm and enhances its value. Like other farm buildings if it is in a dilapidated condition it is an eyesore and a good sign of shiftlessness and poor judgment on the part of the owner. Nevertheless the silo which will be attractive and remain so with the least expense and effort, is the one that will be "a thing of beauty and a joy forever."

**DIMENSIONS.** The question of the size of silo to build is often asked the writer. This is an im-

## SWINE CLUBS MAKING GOOD

PROGRESS IN ANIMAL BREEDING WILL AID IN GETTING BETTER RESULTS FOR RAISERS OF PIGS.

The beneficial effect of pig clubs on the improvement of swine in the United States will be due in large measure to the knowledge principles that the members receive in early life. Progress in animal breeding is limited necessarily by the factor of time and those who early become interested in the work have the best opportunity to reap the full benefits of their efforts.

In calling attention to these and other merits of the pig-club work encouraged by the United States department of agriculture, E. Z. Russell, specialist in swine industry, clearly points out the difference between the constructive livestock breeder and the so-called breeder who really is a livestock speculator. The comparison is of general interest. "In the hog business, for instance, the name 'breeder,' Mr. Russell explains, 'is applied commonly to anyone who has pure bred swine for sale. A large proportion of the men now engaged in the business, however, had better be termed speculators, for to a greater or lesser extent they are engaged in buying and selling animals. Sometimes they keep the animals—which include both sexes—to produce litters, and offer them for sale, but more often they simply buy and sell."

**Close Students of Breeding.** "We have a limited number, however, of those who may be termed constructive breeders. Persons belonging to that class have in mind a class of hog, which as breeders, they are trying to produce, and they study not only the animal itself, but its ancestors. In brief, constructive breeders are close students of individuality and pedigree.

"A number of the so-called breeders of today commenced their hog-breeding activities late in life and did not have the time to take up the business in the way it should be studied from a breeder's standpoint. Consequently, if their activities are extensive, they are likely to be speculators rather than breeders. Many however, are in speculative lines because of the lack of knowledge of fundamental ideas and principles of breeding. This information is readily obtainable from the department and from many other sources."

Indefinite, careless methods in all farming lines, according to Mr. Russell, are injuring those who use such methods. On the other hand the man who meets with the most success in the future will be the one who studies from every angle the problems concerning this particular field of work.

### HOW TO CLARIFY FAT.

The world supply of fat is low. Especially the supply of animal fats and it is necessary that none be wasted in this country or someone in the world is going to lack this important food substance.

Much fat is wasted because of the lack of knowledge of how to prepare certain kinds for cooking purposes. Beef and mutton suet have strong, characteristic flavors, but these may be removed by carefully clarifying all the fat and it will be suitable for almost any cooking purpose.

Put the suet through the food grinder. If it has an odor to it soak it and add a pinch of soda to it during the rendering. Heat on the back of the stove over hot water, or in a pan set in the oven, until the fat can be squeezed from the cracklings. Store in clean tin pails or crocks which are covered tightly and set in a cool place.

Mix boiling water with the cold fat Boil vigorously. Allow the mixture to cool and scrape off the impurities which collect on the lower surface of the cake of fat. To remove a slight burnt taste or other objectionable flavors, melt the fat, add thick slices of raw potatoes, and heat gradually until it ceases to bubble and the potatoes have become a deep brown. A small pinch of baking

portant subject as the diameter of the silo depends upon the number and kind of stock to be fed. To keep silage fresh two inches should be removed daily from the entire surface during the summer months, and at least an inch to an inch and a half during the winter. The cause

of poor silage is often due to nothing more than too large a diameter of silo for the amount of stock fed. The following table shows the number of animals which should be fed from silos of various diameters in order to remove two inches of silage daily when various quantities are fed:

Diameter of Silo	Pounds Removed	Number of Animals Feeding Various Quantities				
		40 lbs. per head	30 lbs. per head	25 lbs. per head	20 lbs. per head	15 lbs. per head
10 ft.	523	13	17	21	26	35
12 ft.	754	19	25	30	38	50
14 ft.	1,030	26	34	41	51	69
16 ft.	1,340	33	44	54	67	88
18 ft.	1,685	42	56	67	84	112

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## BETTER STOCK NOW FAVORED

MOVEMENT TO IMPROVE QUALITY OF HERDS AND FLOCKS IN COUNTY IS GAINING GROUND RAPIDLY.

(From Friday's Daily.) That the movement to introduce better blood in Central Oregon herds and flocks is rapidly gaining was the declaration today of R. A. Ward, who has been working on this idea for the last two years. Increased interest is being taken in the purchase of pure bred sires, and where there was only one owner of thoroughbred cattle in the county 24 months ago, there are now 20, Mr. Ward states.

In line with this movement, a meeting of the Deschutes County Shorthorn association has been called to be held in Bend tomorrow, when the matter of buying bulls for this section will be taken up. Mr. Ward has been asked to secure information as to prices and will report on this at the meeting.

Sunday Mr. Ward will go to the Hay Creek ranch, where he expects to purchase three Hereford sires. In the near future a \$500 bull calf will be brought to Bend from a famous Union county Hereford herd.

Among recent buyers of pure bred stock are Ray Gerking and Jesse Harter of Tumalo, who have acquired a number of beef type shorthorns from M. R. Biggs of Prineville.

Just what may be expected from the introduction of high grade stock by Central Oregon ranchers is shown from an inspection of the Lincoln bucks brought into this section by Mr. Ward last summer. The animals are not quite a year old, but a strand of wool taken from one of them a few days ago measured 15 inches in length.

## TROUT SEASON STARTS APRIL 1

(From Saturday's Daily.)

To County Clerk J. H. Haner belongs the honor of taking out the first Deschutes county fishing license for the 1919 season, which begins officially April 1. Twenty-five angling permits have been issued from the clerk's office to date, and fly books are being carefully replenished in preparation for the day when the ban on trout will be declared off. While licenses may be procured at various places throughout the county,

they will not be reported in to the clerk's office this year, Mr. Haner having refused to allow his bond to cover the losses of merchants who handle the permits. As a result, each license seller will be appointed directly by the state fish and game commission, will be under a separate bond and will make returns directly to the commission. One dollar and fifty cents is still the price for permission to indulge in a season's fishing. The new license blanks are considerably smaller than those of previous years, and will fit conveniently into a card case or fly book.

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Put it in "THE BULLETIN."  
Put it in "THE BULLETIN."

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