Poultry and Pet Stock

Conducted by Thomas P. Horn.

All notes for publication, or questions to be answered in this department, should be addressed to The Washington Standard, or to Thomas P. Horn.

Material for publication each week should be in the hands of the editor of this department by Monday.

ARTIFICIAL BROODING OF CHICKS.

The artificial method of brooding chickens, according to U. S. Department of Agriculture's specialist, consists in supplying artificially as nearly as possible the heat furnished by the hen under natural conditions. The temperature of a hen is about 106 degrees fahrenheit, but as hens seldom sit closely on chickens the latter do not receive this degree of heat. Hens adapt their method of brooding to conditions such as temperature, size of chickens, wet weather, etc., and the operator of the brooder must meet these conditions as well as he can. This lack of adjustability to changes is one of the weak points of our present brooders and brooder systems. Some of the most important faults in the management of brooders are overcrowding and the lack of ventilation, while the chickens fail to get sufficient exercise. The brooder should supply the proper temperature, be readily adapted to changes in weather conditions, and be easy to clean and well ventilated.

Chickens are usually left in the incubator from 24 to 36 hours after hatching, without feeding, before they are removed to the brooder, which should have been in operation for a day or two at the proper temperature for receiving the chickens. A beginner should try his brooding system carefully before he uses it. After placing the chickens in the brooder they can be given feed and water. Subsequent loss in chickens is frequently due to chilling received while taking them from the incubator to the brooder. They should be moved in a covered basket or receptacle in cool or cold weather.

Hovers, Brooders and Brooding Systems

There are a large number of hovers, brooders, and brooding systems used throughout the country, some with success although many are discarded as failures, while each year brings some modification or change. One poultryman uses a system successfully, while his neighbor may make a failure of the same system, but does well with another. More difference of opinion exists as to the value of brooding system than in any other part of poultry rearing, which shows that no system is ideal for all conditions or all people, but that success depends largely on individual handling and care. Many failures in brooding are due to weak chickens, which may be traced to to faulty incubation or weakness in breeding stock.

Brooding systems may be classified as follows, according to their capacity: Individual brooders or hovers holding from 25 to 100 chickens; coal, gasoline, and engine or distillate oil-stove brooders, with a capacity varying from 200 to 1,200 chicks; and hot-water pipe systems, the capacity of which is unlimited. The beginner, if possible, should thoroughly investigate the brooding equipment used on successful poultry farms which have been in operation for some years.

Individual Hovers and Brooders.

The small individual hovers and brooders are heated with either hot air or hot water, with kerosene oil as the source of heat. Hovers are used entirely inside, either in brooder houses or in small colony houses, while brooders are made for both indoor and outdoor use. Outdoor brooders are used with success and work very satisfactorily under most weather conditions. The capacity of brooders and hovers is often overestimated, and one-half to two-thirds of the number of chickens commonly advised will do much better than a larger number. The danger from fire, due frequently to carelessness and lack of attention is considerable in cheap brooders and hovers, while there is some risk in the best grades, although proper care will reduce this to a minimum. Individual hovers in colony houses or several in one large house are giving quite general satsfaction on small poultry farms, while the pipe system of brooding is commonly used in large commercial poultry plants and where extensive winter brooding is done. When a lamp is used as the source of heat, care should be taken to keep the wick and burner properly cleaned. Brooder lamps and stoves should be inspected several times a day. Do not fill the brooder lamp quite full of oil, as the heat from the lighted wick will expand the oil in the bowl and may cause it to overflow and catch fire.

Gasoline brooders, brooder stoves burning engine-distillate oil, and a separate individual hover heated by a coal fire are coming into more general use, each with a capacity varying from 200 to 1,500 chickens. These large individual brooders are used in colony houses, and when the chickens are weaned the colony house is used as a growing coop, which requires a smaller investment than the long, piped brooder house, and allows one to rear the chicks on range to good advantage. Brooder stoves with a capacity of from 500 to 1,500 chickens, heated by distillate oil, are used quite extensively in some sections of the country. These stoves are usually seen in houses which are about 18 feet square, but are occasionally found in long brooder houses. Most of them are equipped with a wafer regulator that controls the flow of oil which is fed automatically from a tank or barrel outside the house or several stoves may be connected with the same supply tank. This system provides good ventilation, sufficient heat to keep the chickens from crowding, and requires a minimum of care.

Until one has had considerable experience it is best not to brood over 1,000 chickens in one flock, and a much smaller number would probably do better.

Individual hovers with a capacity of from 200 to 1,000 chickens have recently been placed on the market and appear to be giving satisfaction. Each hover is heated by a separate self-feding coal stove which is adapted for use in a colony brooder house. The value of this brooder would appear to depend greatly on the efficiency of the heater and the time required to care for the stove.

Hot-Water Pipe Brooders.

This system consists of long brooder houses heated with hot water, coal being used for fuel almost exclusively. Many of the latest mammoth brooders are giving good success, and in these cases the labor of brooding a large number of chickens is less than where small individual brooders or hovers are used. These brooders are suitable for large poultry farms or for farms where most of the chickens are raised during the winter and early spring.

Methods of Heating.

Brooders are heated either by overhead or bottom heat or by a combination of these two methods. Too much bottom heat does not give good results, while either the overhead or the combination methods are used successfully. Many pipe systems have a hover or cover a section of the pipes in each pen, while others are used without them, and each appears to give good results with different operators. A piece of wool felt or cotton flannel is often used for this purpose. Gas and electricity are also used for heating brooders and hovers with good success, and where available they supply one of the steadiest and most convenient sources of heat. A brooder built along the style of the oil brooder stoves with gas or electricity as the source of heat should prove very satisfactory. Heaters for the mammoth brooders or hot-water pipe systems are usually equipped with automatic regulators, which are operated either by expansion of water or electric contact. Both types of regulators have given good satisfaction. A reliable regulator is very essential to success with any of these systems.

WILL APPLY REFERENDUM.

Organized Labor Leads Campaign Against Republican Measures.

Organized labor of the state will circulate a state-wide referendum petition asking for a repeal of the "certificate of necessity" bill, the amendment to the initiative and referendum laws, and the port bill. Labor will also take part in securing a referendum on the jitney bus bill. A mass meeting will be held in Seattle Friday evening of this week and in Tacoma next week to generally institute these movements.

A referendum campaign was instituted in Tacoma Saturday against the new law to restore party conventions. This bill, the jitney bus measure, and the initiative and referendum amendments were passed over the governor's veto.

W. F. Lea was this week appointed by Superior Judge Wright as receiver for the Western Pacific Lumber company.

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Word was received by H. B. McElroy this week of the death in Rossland, B. C., March 8, of Mrs. Jane Catherine Elsing, mother of William K. Eling, who was editor of a local newspaper 18 years ago.

SNOW TELLS HOW TO BUILD PIT SILO

LOCAL FARMER WRITES ARTICLE FOR BENEFIT OF OTHERS IN COUNTY.

The construction of silos and the growing and use of ensilage is becoming more common in Thurston county every year, and the constant agitation in favor of silos has resulted in at least interesting practically every farmer in the subject.

What a local farmer has done—what success he has had—what he thinks about the silo—are of course the things other local farmers want to know, rather than what some farmer somewhere else has done, for they know the local man has had to deal with practically the same situation as will confront them. Consequently the following letter from L. L. Snow, a prominent Thurston county farmer, telling how he built two pit silos, how much they cost him and what he thinks of them, should be particularly interesting:

Editor The Washington Standard:

I wish to place before the patrons of your paper, especially the farmers that are interested in dairying, my experience with a pit silo, both in building and feeding.

As some of the farmers know, I built two pit silos during last summer, one seven feet in diameter and 18 feet deep, the other nine feet in diameter and about the same depth. I never had any experience at such work and, in fact, this was my first attempt at digging or mixing cement and sand.

How Pit Was Dug.

In the first place, I must state that my ground is ideal for the building of such a silo, all but three feet being clay, the balance sand. After striking two circles on the ground, one seven and the other seven feet six inches, I excavated between these two circles to a depth of two feet, leaving the center stand. I then filled in with a mixture of three parts sand and one part cement and let it stand 48 hours, thus making the collar for the silo. I then dug out the dirt in the center to a depth of four feet below the circle or collar. I then plastered on to the dirt wall, with a common mason's trowel, cement mixed with two parts sand and one part cement, as thin as I could easily handle, my sand being the fine washed sand from Mr. Weston's.

After cementing this wall I dug down again, to a depth of about four feet more, then plastered, thus saving the job of building staging. When dug to the proper depth, I put in a floor, two parts sand and one part cement, about three inches thick. each day I poured water on the walls to keep them from cracking, for about a week. I hoisted the dirt with my team, thus saving lots of hard work.

The walls must be kept perpendicular so the silage will settle evenly, and to do this I used a spirit level in digging and in putting on the cement. By so doing my walls are quite true. Three-fourths of an inch thick is plenty for your walls. After my silo was cemented and dried, I took water and cement and mixed them to a thickness of thin cream, took a whitewash brush and went all over the walls and floor to make them air tight.

Now we are ready to fill the silo. I use a No. 9 Smalley ensilage cutter and a two-horse Fairbanks-Morse gasoline engine. With four men, one team and two wagons I can put in 15 tons or more per day.

See the money you have saved on machinery. If you only intend to keep 10 cows, this is a good outfit for a pit silo. The cost of distillate and oil for cutting two acres of corn was 65 cents.

Considers Silage Successful.

In conclusion, I will say my silage was a success, for I did not lose one pound of corn and only about 300 pounds of vetch and oats, and I would not have lost any vetch and oats if I had used more water. I have not fed my cows grain since I commenced feeding corn ensilage—only good hay and oil meal. The cost of these two silos was $25.85 cash, besides my labor.

Some one will at once say it must be hard to get the ensilage out. In answer I will say: Build a hay track out over your silo so it will run in front of your cows, the same as if you were unloading hay from your wagon, put a large galvanized barrel made with hinges on the bottom, to hold silage, hoist from the silo with your gas engine and I am sure your work getting the silage from a pit is just as easy as it is from one on top of the ground.

Remember this, when your pit silo is emptied is is at once ready to fill without loosening or tightening hoops. The temperature is always the same, winter and summer, and keeps your silage in perfect condition.

Thanking the editor for the space in this paper and wishing to help others with my experiment, I am,

Yours for better farming,
L. L. SNOW.