

## FEED WELL IN MOLT SEASON

Forcing Molt Stops Egg Production Without Early Resumption.

DO NOT OPPOSE NATURE

Growth of Feathers Calls for Plentiful Supply of Protein—Fat Gives Feathers Gloss.

Scarcely anything on the farm is more distressing to view than a lot of hens going into cold weather without enough feathers to keep them warm. It is much like a man wearing a palm beach suit with snow on the ground, and trying to seem unconcerned about it, or the chap who leaves off his overcoat in zero weather to harden himself—so he says.

Forcing the Molt Unwise.

But there doesn't seem to be any help for the unhappy poultry minus their winter clothing. Much was said a few years ago about forcing the molting of hens, controlling it, and so arranging things generally that the hen would get back on the job of laying eggs with less delay. An experienced New York poultryman declared he had solved the problem by cutting down very materially the hens' rations for several days. This was followed by heavier feeding than ordinarily. The menu, or the lack of it, stopped laying, and often resulted in molting at once.

The results were not so satisfactory as had been hoped. In many cases the hens did not finish the molt much, if any, quicker than if they had been let alone. It didn't seem possible by this means to control the time at which the hens could be brought back to laying. Egg production could be stopped all right, but it couldn't be resumed any earlier than usual, and sometimes it looked as if it had been stopped permanently. Obviously, this wouldn't do.

One of the chief attractions of poultry raising is a constant supply of eggs, let the feathers fall when they may. So it is not advisable for anyone to try systems that work in conflict with Nature, who seems to have



There are more Holsteins than any other purebreds in the state of Washington. The above is a bunch of purebreds belonging to George Cotton of Winthrop.

The census bureau has sent out the following as to the number of purebred cattle found in the state last year when the census was taken:

The purebred cattle constitute 18,560, of which number the beef breeds make up 5,840, while the dairy breeds are in great majority with 12,720. Of the beef breeds the Shorthorns are more than one-half the total number, being 3,381, with Polled Durham second, 1,202. Hereford and Aberdeen Angus make up the rest of the pure

bloods, with the exception of 353, the breed of which is not reported. The Holstein-Friesians have the same position among the dairy breeds that the Shorthorns have in the beef breeds, having a majority over all. There are 7,637 pure blood Holsteins in this state, of which males are 2,607.

On this showing the prospect is that grade Holsteins will be more common in a few years than scrub stock, a consummation devoutly to be wished. Jerseys are in second rank to the Holsteins, with 3,402. Guernseys follow next with 941, then Ayrshires and Brown Swiss in the order named.

a way of her own in such things. Feathers were intended to come off about once a year—the hen being more or less feminine after all. "It is distinctly unwise," says a government expert, "to attempt to force the molt. It is well to let hens lay as long as they are in the mood to do it, and then to let them molt when they get ready."

New Feathers Taxes Energy. As a rule, hens that begin to molt early do the job slowly, and are the poorer layers of the flock, while those that molt late get through with it quickly, and are about the best layers. Usually it takes three or four months

## CLUB GIRLS FAIR EXHIBIT UNIQUE

South Bay Canning Club to Serve Canned Geoduck to Public.

One of the unique features which will be seen at the Interstate Fair at Spokane next week will be the demonstration in canning, conducted by the South Bay Canning club of Thurston county. The girls will show to the visitors at the fair how to can and prepare for the table the delicious bivalve, the geoduck. These rare ducks are not like other ducks and swim on the water or fly in the air, but they bury themselves from two to four feet deep in the oozy mud of Puget Sound, and can only be obtained at extreme low tide. In digging these clams it is necessary to trench around the place where the neck appears above the surface of the beach so the water will not run into the hole. Then they are dug some inches away from the neck so as not to disturb the clam. When down to within about the bottom of the shell, the shovel is placed under the clam and the geoduck is pulled out. Another method is to sink a casing about two and one-half feet in diameter and three feet deep around the

clam and dig the mud and sand out of the casing, thus freeing the clam. The South Bay Canning club of Thurston county have made a specialty in canning all kinds of sea food, such as rock clams, butter clams, geoducks, trout, salmon, flounders and all kinds of sea food. They will have a goodly supply of the famous geoduck on hand and will serve it fried, in chowder and made into patties, to be given to the public. The girls are shipping over an exhibit of one hundred quarts of fruits and sea foods for display.

In Club Work Five Years. There are six girls in the club, Ruth Haydeen, Gladys Taylor, Ruth Adair, Margaret Haydeen, Mary Bennett and Ester Madden, and each of these girls have canned over two hundred quarts of food so far this year. One of the remarkable facts about the club is that four of the girls have been in club work for five years. Ruth Haydeen and Gladys Taylor are to be at the Interstate Fair to contest for interstate championships in canning, while Ruth Adair and Margaret Haydeen won out in the district contests held at the Southwest Washington Fair last week and will try out for state championship at the State Fair this month. Financial aid to send the team to Spokane has been secured through the efforts of the Olympia Chamber of Commerce and the Thurston county farm bureau. A special drive was conducted in Olympia for this purpose and the show windows of a prominent merchant were given over to displaying the club's canned products. William Dunham, county club agent for Thurston county, says it is one of the most unique exhibits and demonstrations ever conducted, and the business men of the county are behind the move to see that one of the natural resources of Olympia is given the proper amount of attention. It is rare that the same canning team produces a state championship team as well as another contestant for state honors.

## HELPFUL HOUSEHOLD HINTS

Any undesirable odors coming from glass bottles or earthen vessels can easily be remedied by filling them up with cold water in which soda has been dissolved.

Finely chopped parsley added to canned peas and string beans before heating will improve the flavor.

Some farmers may think it a waste of time to treat their grain for smut, but experience shows differently.

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## BOOK ON DOG DISEASES

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## NO ADVANTAGE IN MILK SUBSTITUTES

Artificial Milk Does Not Utilize Waste—But Little Cheaper.

The discussion for and against "artificial milk" has been transferred to congress where legislation against it is sought. The subject is one in which Western Washington, with its large dairy interests, is especially concerned. On one side of the issue are the producers and on the other the manufacturers of milk products. It is a controversy in which the outsider is interested because he must play the role of consumer. Apparently there are extravagances on both sides. Few of us believe that this artificial milk—skim milk and vegetable fats, chiefly those extracted from coconuts—will work the havoc to the dairy industry that is pictured, neither do we regard it as the ideal economic product, avoiding waste and meaning a healthful food at a much cheaper price than that demanded for whole milk.

A Seattle newspaper declares this artificial milk a most beneficial thing because it utilizes skimmed milk that otherwise would be used for hog feed or would go to waste and because it reaches markets canned milk cannot supply and because it is much cheaper; that it is a very excellent thing to have two foods where but one was produced before.

But the dairymen come back with the assertion that artificial milk is sold for only about a cent a can cheaper than whole milk and that it does not utilize waste.

We're hardly prepared at this stage to indorse synthetic foods no matter how correctly they may be built up; maybe, when our population becomes denser and we have less idle land, the chemist can have his turn and the product of his skill be termed a blessing.

School will soon begin, and with it the hot lunch for the children.

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## FERTILIZER IS MINED IN WEST

Rock Phosphate Declared by Experts Choicest of Soil Foods.

COST TO FARMERS IS SMALL

Spokane Men Developing Enormous Beds in Montana—Claim Largest Supply in United States.

Farmers of Washington will have available the leading soil builder of the fraction of commercial fertilizers if expectations of developments of rock phosphate and lime beds in Montana are fulfilled. Not only will the supply of this choice fertilizer be ample for all requirements, but it will be sold at from one-fourth to one-half the price of the average commercial fertilizer, according to Fred J. Russell of Spokane, president of the Montana company.

Heretofore rock phosphate has been mined in the United States almost exclusively in Florida and Tennessee. Little of this supply has found its way to the Northwest because the supply was too limited and because of high freight rates. South Idaho has some phosphate beds, but their output is consumed by the farmers of southern Idaho and Utah.

"The phosphate beds of southern Florida and Tennessee have up to the present supplied about 52 per cent of the world's output. It is said that those beds are becoming depleted.

"The Montana Phosphate company's holdings are said to be twice as large as those of the famous Ocean Island beds, which were sold for a song to the English government because, as a writer in Leslie's magazine puts it, 'the owners of the island were asleep on their own gold mine.' Today Ocean Island is valued at millions of dollars. The resources of the Ocean Island beds are estimated at 35,000,000 long tons; the resources in the Montana Phosphate company's beds are estimated by geological experts to be more than 70,000,000 long tons.

"The big vein in these holdings runs from a point northeast of Maxville to a point southwest of Phillipsburg, a distance of 12 miles."

Report Great Tonnage.

"The government survey engineers and other engineers of note estimate the tonnage in these beds to be approximately 70,000,000 long tons, above water level, and the deposits are believed to extend at least 1500 feet below water level. Adjoining these beds is a mountain containing millions of tons of the highest grade of limestone. Several bulletins have been gotten out by the United States geological survey department on the extent and value of these fields.

"The analysis shows an average of 60 per cent tricalcium phosphate, an unusually high grade.

Used in Illinois. "Due to the advice and teaching of Dr. Cyril G. Hopkins, one of the world's greatest authorities on the care of the soil and one of the founders of the famous government experimental agricultural college at Champaign, Ill., the farmers of that state, where land sells for \$400 to \$800 an acre, are using hundreds of thousands of tons of rock phosphate and ground lime. Last year alone Illinois used more than 300,000 tons of ground lime and 150,000 tons of rock phosphate.

"Frank I. Mann of Gilman, Ill., says he increased the production of wheat on his land from 20 to 63 bushels an acre and oats and corn from 35 to 100 bushels an acre by the use of rock phosphate.

There are a lot of farmers who have taken their sons into business as partners instead of hired men.

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to complete the process of molting. A few are all through in two months. Some go at it gradually, as if they didn't like to attract attention, while others drop all the feathers they have, or nearly all, at one time, and go about almost naked, with no regard for the proprieties. And while this is going on the hens lay few or no eggs. This is because the growth of a new coat of feathers makes such a demand upon the body that it is out of the question for egg production to continue in any large degree.

The growth of feathers, like all other growth, calls for a plentiful supply of protein in the ration. Most poultry raisers, however, make no effort to feed a special ration at molting time, but continue to give the laying ration which the hens have been getting right along. This is good practice because a laying ration contains protein which goes into the forming of feathers, since egg production practically ceased when the molt begins. Still, some poultrymen like to be sure there is a liberal supply of protein available for the hens during the molting period, and this is achieved by feeding beef scrap in a hopper where they can help themselves, a sort of hen cafeteria. With many farm flocks, where little or no attention is given to feeding the hens any animal feed, their rustling ability being relied upon to supply this in the shape of bugs and worms, and where the hens may not during the molting period be getting enough animal feed to promote quicker growth of feathers, it is good practice to feed beef scrap in the way described. Milk is also an excellent feed at this time.

Sunflower Seed in Favor.

Rations which contain a high percentage of fat have a tendency to give the feathers a high gloss. Sunflower seed, because of its fat content, is in favor among some poultrymen as a feed during the molting period, especially with birds which they wish to get into the best condition for exhibition.