

WHEATLESS RATION FAVORED FOR HENS

(From the United States Department of Agriculture.)

With wheat so high, poultrymen will be interested to learn that on the United States department of agriculture experiment farm excellent egg-laying results were secured with a wheatless ration. Thirty Leghorn pullets to which this ration has been fed for one and a half years produced an average of 147.3 eggs per hen for the pullet year. This compares favorably with egg yields secured on other rations containing wheat and therefore more expensive. This pen, moreover, during the first 16 weeks of its second year has averaged 28.5 eggs per hen, 17.5 eggs per hen being produced in March.

The same wheatless ration has been fed since last November to a pen of Buff Orpington pullets, which have laid 53 eggs per hen in 20 weeks and hold the highest egg record of any of the large feeding pens of pullets at the farm this year. Two other pens, however, are less than one egg per hen behind this pen. The ration used was as follows:

Scratch Mixture.	Dry Mash.
2 pounds cracked corn	3 pounds corn meal
1 pound oats	1 pound beef scrap

The scratch mixture was fed sparingly, so that the hens ate about equal

parts of this mixture and of the dry mash. The total grain consumption of feed for the year was 52 pounds, of which 26 pounds was scratch mixture. Throughout the year it took 4.0 pounds of feed to produce a dozen eggs.

This scratch mixture, with wheat \$2.57, cracked corn \$1.35, and oats 70 cents per bushel, is 49 cents per hundred pounds cheaper than the regular mixture of equal parts cracked corn, wheat and oats. Another mash which is slightly cheaper than this one is made of 4 per cent each bran and middlings, 26 per cent beef scrap, and 69 per cent cornmeal.

If the wheat is omitted from the ration, it is very essential to feed a considerable proportion of beef scrap in the mash, but with present prices beef scrap is one of the cheapest poultry feeds, considering its high protein content, and its adaptability as an effective weight-making combination feed.

These experiments, the specialists say, prove that wheat is not essential in an egg-laying ration and that excellent results can be secured by using corn and oats as a scratch mixture, provided that this is fed with a good mash feed containing 25 per cent beef scrap.

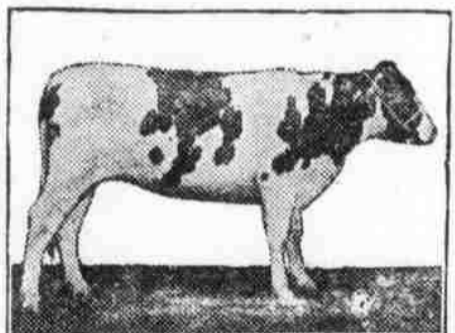
DAIRY



MILK BREEDS ARE COMPARED

Average Percentage of Fat in Guernsey Milk is 5.16 and That of Holstein is 3.42.

The average per cent of solids in Guernsey milk is 14.71 and in Holstein milk 11.85. The average percentage of fat in Guernsey milk is 5.16 and in Holstein milk 3.42. The percentage of solids taken from the milk when separated approximates four-fifths of the amount of fat removed. This be-



A Very Promising Heifer.

ing the case, the average sample of Guernsey skim milk will contain about 10.5 per cent solids and the average sample of Holstein skim milk will contain a little over 9 per cent solids. The solid matter in a sample of skim milk from either of these breeds will be divided as follows: Sugar, 50 per cent; proteins, 35 per cent; ash, 13.75 per cent, and fat, 1.25 per cent.

SUMMER DISEASE OF CATTLE

"Pinkeye" is Especially Troublesome During Hot Weather—Sometimes Results in Blindness.

"Pinkeye" of cattle is a common disease, especially during summer months, and sometimes results in total blindness. It is undoubtedly infectious, and is believed to spread from one animal to another through the medium of flies. The disease runs its course in ten days or two weeks, affecting one or both eyes.

A profuse flowing of tears is the first evidence of the attack. The animal keeps the eye constantly closed, for it is very sensitive to light. Gradually a film seems to form over the eye and the ball becomes clouded.

Care at this time is very necessary and may save the animal from blindness. Confinement in a comfortable stall with all light excluded is the best. Laxative food will put the animal in good condition to ward off complications. If flies are allowed to irritate the sore eyes they will probably spread the infection to other animals.

Bathing the eyes in a strong solution of boric acid is a treatment easily applied and generally effective. A better method is to place a few drops of the following mixture in the eyes with a dropper: One-half grain of zinc sulphate, ten grams of boric acid and one ounce of distilled water.

PRACTICE OF SKIMMING MILK

To Secure Best Results It is Best to Skim Milk and Churn Cream, Says Clemson.

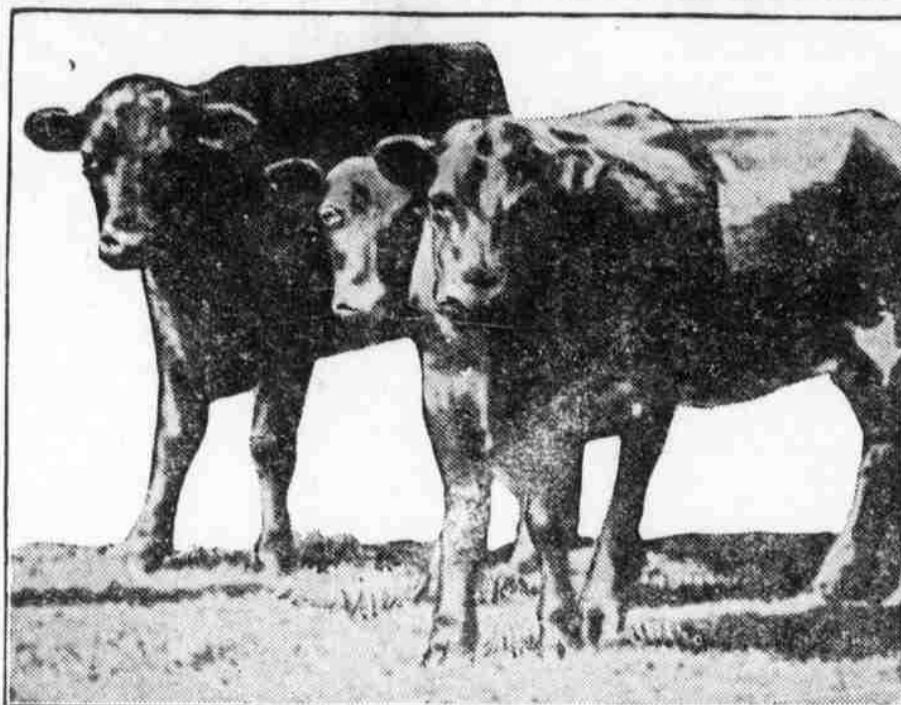
Experience has shown that in general practice the churning of whole milk results in butter of a poorer fat in the buttermilk than if cream is churned, says Clemson Agricultural college of South Carolina. It is therefore best to skim the milk and churn the cream. The best way to skim the milk is by means of a separator. A farmer who has only two or three cows, but no separator, may put the milk into deep, narrow cans (shotgun cans) and set them in cold water, and when the cream rises it can be removed with a shallow spoon. Where this system is used it usually takes about 12 to 18 hours for all the cream to rise. Care should be taken to keep the milk cold, in order to make the cream rise rapidly. The old method of setting the milk in shallow pans should not be used, as the cream does not rise so completely as when set in deep cans in cold water; furthermore, the quality of the cream is not so good and there are more vessels to wash and care for.

DESTROYING ODORS AND CUGS

Fresh Air and Sunshine is Death to Both—Place Utensils Where Sun Will Strike Them.

Fresh air and sunshine being death both to odors and to "bugs," there is a close relationship between clean milk and sunning of milk utensils. Do not stopper the cans when setting them out to sun. Let the air work in and out. Choose a place to set them where the sun shines upon them most directly. Turn them bottom side up to keep dust out of them more effectively—and possibly rain. Nature will then do her share toward freeing the milk can from taint. She will materially lessen the number of bacteria hiding within.

LIVE STOCK PRODUCTION IN THE SOUTH



FINE BUNCH OF BEEF CATTLE ON SOUTHERN FARM.

(From the United States Department of Agriculture.)

Better marketing facilities are essential to the increase in live-stock production in the South, which is desirable from every point of view. Various methods of improving the present situation in this respect have been tried out, and the most promising ones are discussed in a new publication of the United States department of agriculture, Farmers' Bulletin 800. Among the most important are the organization of co-operative shipping and marketing clubs and of local live-stock buying companies, the establishment of local packing houses, the custom of holding live-stock sales on advertised dates, and the use of local ice plants in curing farm meat.

Of these, says the bulletin already mentioned, co-operative shipping is the one that is being most generally adopted in the United States. Associations for this purpose have met with marked success in the middle West and are equally well adapted to conditions in some parts of the South. They enable the small producer to ship his animals to centralized live-stock markets at no greater cost for transportation than is paid by the dealer who ships in carload lots. In this way the farmer is made independent of local buyers. Another great advantage of such associations is that they are simple in organization and require no capital to do business, because the farmers are not paid for their stock until the returns from the shipment are received.

Market for Stock.

In one Mississippi city the board of trade has created a somewhat more complex organization in order to provide the farmers of the surrounding country with a good local market for their live stock throughout the year. A "farmers' stockyards company" has been organized with a paid-in capital of \$2,500, provided by local business men, in the hope of increasing the production of live stock in the section. No dividends are paid and the operating expenses of the company are reduced to a minimum. On two days of each week throughout the year the company buys live stock for cash in any sized lots, at prices which are the equivalent of those prevailing at the large centralized markets less the cost of sending the animals to these mar-

These and similar methods are designed to afford the farmer easy access to the large outside markets. Without them he is practically dependent on the local butcher and the local dealer or shipper. In selling to the butcher, frequently little or no attention is paid to market conditions. Hogs and cattle are slaughtered on numerous farms when the weather turns cool, with the result that the market is glutted. This means low prices, which the farmer must accept because the product is perishable. In a small town in Louisiana, for example, it was found that each time it grew cool eight or ten dressed hogs were offered for sale when the demand called for no more than one or two.

Home Curing of Meat.

To some extent a remedy for this situation may be found in better methods of curing meat at home and also by taking advantage of the refrigeration facilities afforded by local ice plants. Experience has shown that it is practicable for the average Southern farmer to cure the pork needed for immediate home use, and the possibility of marketing hogs in the form of cured meats is worthy of consideration. Some form of refrigeration, however, will greatly aid in safeguarding the curing process. This may be supplied either in private meat-curing houses or in a community meat-curing house, or by taking the meat to a local ice plant to be cured. A recent experiment has shown that in a small meat-curing house in southern Georgia the cost of curing the meat was not more than three-fourths of a cent a pound, including the cost of the ice. On the other hand, a number of ice companies curing meat for farmers charge 1 cent a pound for curing, 2 cents for curing and smoking, and 3 cents for curing, smoking and wrapping. Some ice plants prefer to buy the hogs outright from the farmer and sell the cured products on their own account. A noticeable effect of this practice is to increase the number of hogs produced, because of the comparative certainty that a fairly profitable market will be found for them.

PROTECT SHEEP FROM DOGS

Canines Which Destroy Farmers' Flocks Should Either Be Muzzled or Killed Outright.

Town dogs which make war on the farmers' sheep should either be muzzled or killed. Thousands of sheep are killed in this way every year and farmers are discouraged from growing wool and mutton. Local and state officers should see to it that the sheep of the farmers are protected, especially at this time. The wool supply must be increased if the armies and the people are to be properly clothed.

RESIN STICKER VERY USEFUL

Trouble May Be Obviated Where Spray Materials Do Not Adhere Well to Some Plants.

Spray materials do not adhere well to some plants, such as the onion and cabbage. This trouble may be obviated by the use of a "sticker." Resin sticker may be made by boiling in the open two pounds of resin and one pound of sal soda crystals in one gallon of water until the solution turns a clear brown color. This amount of material may be added to 50 gallons of bordeaux mixture.

ROTATING COTTON AND PEAS

Plan to Overcome Wilt by Planting Cowpeas—Latter is Immune to Fungus Disease.

Rotating cotton with the iron cowpea will overcome cotton wilt, as the cowpea is immune to the fungus that induces the wilt, and causes it to die out. A wilt-resistant cotton has been found, within the last five years, that can be grown with profit under boll-weevil conditions.

BROOD SOW NEEDS EXERCISE

Animal Should Not Be Kept Too Closely Housed—Comfortable Bed and Ventilation.

The brood sow must have plenty of exercise. Do not keep her too closely housed. Be sure she has a comfortable bed and that the hoggishouse is well ventilated. It will not injure brood sows to do a little rustling for feed.

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Took Him Literally.
A clergyman in a remote part of the Scottish Highlands was speaking at length to his congregation of the many things round us that are shrouded in mystery and of which we know little. As he warmed to this theme, he became eloquent, and frequently repeated the oft-quoted saying of Goethe: "More light! Oh, for light!" His surprise may be imagined, says the Scottish American, when, after one of these utterances, the old beadle, who had been dozing since the commencement of the sermon, woke with a start, then got up, tiptoed softly into the vestry, seized two additional candles and, ascending the pulpit stairs, placed them beside the two already there, and in a loud whisper, heard all over the church, exclaimed: "Ye maun do wi' these, for there's nae mair!"—Youth's Companion.

Making 'Em Bite.
A street car passenger stooped to pick up something from the floor.
"Who has lost a dime?" he asked.
At once half a dozen passengers began fumbling in their pockets, until one of them held out his hand and declared that he had dropped the coin.
"Does it bear the date—1860?" inquired the finder.
"Yes, certainly."
"Is one side rather worn?"
"Just so."
"Here you are, then," said the finder and handed him a trousers button.

After the field is plowed come the harrowing details.



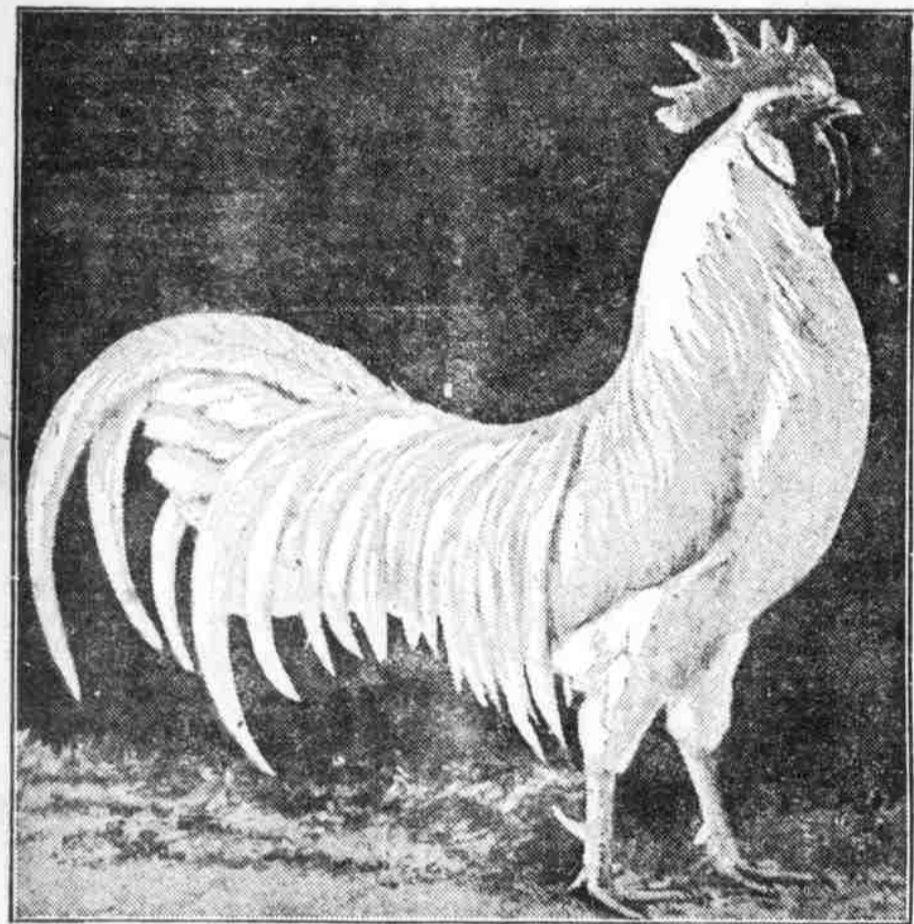
A Perfect Day should end—as well as begin—with a perfect food, say—

Grape-Nuts with cream.

A crisp, delicious food, containing the entire nutriment of whole wheat and barley, including the vital mineral elements, so richly provided by Nature in these grains.

Every table should have its daily ration of Grape-Nuts.

"There's a Reason"



SINGLE-COMB WHITE LEGHORN COCKEREL.

FEED HENS FOR EGGS

Problem Requires Good Judgment and Keen Observation.

Fowls Should Have Foods High in Food Elements Found in Eggs—Whole Grain Ration is Not to Be Recommended.

(By B. L. KEMPSTER, Missouri College of Agriculture.)

A hen laying 200 eggs in a year is not at all unusual. A four-pound hen laying this number will produce six times her weight in eggs. To do this she will require from 70 to 80 pounds of feed. For economical production it is necessary (1) that the food be properly selected, (2) that it be fed in correct proportion and in a judicious manner in order that her digestive organs may be kept in good condition, (3) that she be fed enough so that she has plenty of surplus for egg production.

The problems of poultry feeding require good judgment and keen observation. Hens fed for egg production should have foods high in the food elements which are found in eggs. Those fed in the fattening pens should have the foods which most economically produce fat. The best ration, then, is the one which supplies most economically the food requirements of the bird for the purpose for which it is kept.

It should be remembered that one of the principles of poultry feeding is that the hen cannot do well if fed on a whole grain ration. Not only does a ration of grain fail to furnish the proper food nutrients, but such a ration is difficult for the bird to digest properly. The great fault with the farmer in his poultry feeding is that he attempts to feed a whole grain ration, and generally only one grain at that. Such a ration results in poor egg production and also causes digestive disorders and liver and kidney troubles. Complaints of this kind frequently come to the department of poultry husbandry and a suggested change in the ration has usually resulted in the elimination of the trouble. Efficient digestion demands a combination of whole and ground grains. A ration should consist of grains and ground feeds. Generally speaking, twice as much grain should be consumed as ground feed. This depends, of course, upon the nature of the foods fed.

RATION FOR EGG PRODUCTION

Equal Parts by Weight of Wheat and Corn is Recommended—Give Sour Milk or Beef Scrap.

A good ration for egg production can be made with a combination of grains and ground feeds. For grains, equal parts by weight of wheat and corn, or in the winter time twice as much corn as wheat may be used. For ground feed, a mixture of equal parts of bran, shorts, and cornmeal may be used. Efficient egg production requires also that this ration be supplemented with either sour milk—or in case sour milk is not available, commercial beef scrap. One-fourth of the ground feed should consist of beef scrap in case this is used.

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