FEED FOR WINTER EGG PRODUCTION

# for Strong Bodied Fowls.

One of the paramount problems at this time is the matter of feeding for maximum egg production through the winter, when egg prices are highest. Some mighty good hints on this question are supplied by R. L. Watkins, extension poultry specialist, Ames, in his bulletin for record flock keepers. His suggestions follow:

"Winter eggs are laid by well-matured pullets and healthy old hens which are comfortably housed and properly fed. Maturity and health make for a strong-bodied egg machine. Pullets, to lay large eggs steadily throughout the winter, must have proper body size and weight. Leghorns or other light breeds may be considered ready for a regular laying ration when three to three and onefourth pounds in weight. Heavier breeds, such as Reds, Rocks and Wyandottes should weigh four and onehalf to five pounds. Immature pullets must not be forced into egg production by feeding them on a regular laying ration.

Comfort enables the bird to utilize feed in manufacturing eggs instead of using the energy thereby obtained to maintain body warmth. Feeds are the raw materials out of which hens build eggs.

"A well-balanced egg mash containing ground grains or grain by-products, protein concentrates in the form of meat and milk products; minerals in the form of bonemeal, salt and some grit; and often green food in the form of ground alfalfa must be kept available to hens and pullets if they are to lay any number of eggs during the winter months.

"Whole or cracked grains such as corn, osts, wheat and barley should be used in combination with a mash to maintain body weight and comfort. Body weight cannot be maintained during heavy egg production unless sufficient grain feeds are included in the ration. In a ration made up of mash and grain the mash feed contains most of the egg building material while the scratch grain contains most of the fat and heat-building material. Good poultry management requires that the birds consume sufficient mash to maintain their egg production, also that they eat sufficient grains to maintain body weight, Hens losing weight soon stop laying."

#### Cod Liver Oil Is Most Easily Given in Feed

The value of cod liver oil for poultry is summed up by one hen professor as follows: Stronger and healthier birds, prevention of leg weakness from heavy laying in late winter and spring, better looking egg shells, more and stronger chicks from the eggs hatched, and fewer blood spots in eggs.

Cod liver oil is most easily fed. this professor writes, in semi-solid buttermilk or cottage cheese. Or, he says, you can feed it with the scratch grain-a quart to 100 hens every week.

For a flock that size, his method is to mix about a tencupful of the oil with the scratch grain every other day. Keep this up until spring takes the flook outdoors again,

#### Guard Against Disease in Feeding Green Bone

Some butcher shops have installed bone grinders and sell ground green bone. This is an excellent feed when fed fresh, but poultry offal must not be ground in because of the danger of transmitting disease to the flock This is especially true of tuberculosis Whenever a supply of green bone is purchased it should be spread out thin in a cold room. If left in a paper sack even in a room below freezing the center of the mass will heat and spoil. Green bone cannot be success fully kept in large quantities unless thinly spread.

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#### Poultry Notes

A fresh supply of water should be available to the hens at all times.

During extremely cold weather birds should be given more corn and grain than during mild weather.

Birds prefer grain feeds. The amount of mash consumed is deter mined by the amount of grain fed.

The mash is the egg food and the birds will like it and eat it as long as there is plenty for them in the

Let your breeders out every day regardless of the kind of weather, as it is eggs with good, healthy germs that you are after.

Only by constant improvement can you hope to get in the A-1 class, and when you do you'll find a waiting market for every egg or baby chick you can produce.



DAIRY INDUSTRY NEEDS OUTLINED

# tors Are Pointed Out.

(Prepared by the United States Department of Agriculture.)

The important factors that need attention in the dairy industry today are: (1) Greater efficiency in production; (2) production of the highest quality in dairy products; and (3) increasing the consumption of dairy products. This is the statement of O. E. Reed, who recently took up his duties as chief of the bureau of dairy industry, United States Depart-

ment of Agriculture. "Scientific facts available today in regard to these factors," continued Professor Reed, "are sufficient proof that a program of this kind entered into by the entire dairy industry will stabilize and insure prosperity for those engaged in it.

"The need of more economic and efficient production is quite apparent on every hand," he said. "The dairy farmer must cull out the low producing cows from his herd and build for a greater production for each cow through keeping records of production, by using better sires, and by following the best methods in feeding, breeding and management. The same problems must be considered by the manufacturer and distributor of

dairy products. "The quality of dairy products must be given more consideration. The farmer is responsible for the quality of the product as it comes from the farm. The manufacturer and distributor are responsible from that point on until it reaches the consumer. Dairy products are perishable and the demand for them will depend upon

quality. "The consumption of dairy products has increased to a marked extent during the past few years but in the light of recent investigations, both from the standpoint of the need of milk in the diet and the underconsumption of dairy products in many sections of the country, a considerable increase can yet be made.

"The work of the bureau of dairy industry is designed to add information through research and investigation to help with a program of this kind. The bureau's efforts, together with results of research carried on by all other organizations of the industry will do much to help solve these problems, but this alone is not sufficient to guarantee success in this If the entire industry is to reach the highest level of stability and prosperity every branch must cooperate with every other branch in carrying out a program that will meet

all needs. "And no part of the industry," concluded the new chief, "should forget that we need to continue to keep the public informed as to the value of dairy products, the progress being made in the improvement of them and the methods of production. The more we spread information regarding dairying the faster we will improve and the better the market

#### Feed Dairy Cows Well Balanced Grain Ration

The generally accepted rule for feeding dairy cows is to supply a wel balanced grain ration-balanced according to the character of the rough age fed-at the rate of one pound for each four pounds of milk produced by cows yielding milk testing around 35 per cent fat, and one pound of grain for each three pounds of milk produced testing close to 4 per cent of fat or more. This general statement should not be considered as a cast fron rule, but should serve as a guide to definitely ascertain the capacity of each cow and then feed her more or less than these directions call for according to the response made by each individual.

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#### Dairy Notes \*\*\*\*\*\*\*

Several kinds of lice may be on, the same calf but it is the big blue ones that do the damage.

The numbers of bacteria in milk have little meaning unless the sank tary history of the milk is known.

The taste of clean milk is sweet and aromatic. The sweetness is due to the milk sugar, while the aromatic truste comes from the fat. Onions, bit to sweet, etc., give bad flavors to

Some calves seem to be free of lice abile others in the same pen may be covered. The olly-skinned calves have natural protection and because of th's they fare better than dry-skinned

ones. One of the most common mistakes nade in winter feeding of dairy cows is failure to provide enough feed. The ow may be looked upon as a milk factery, and as in any other manufactur ing plant, the cheapest production is possible only when the plant is run nearly to full capacity.

# Horticultural News

#### MULCHING HELPS STRAWBERRY BED

#### Maturity and Health Make Three Most Important Fac- Fruit Specialists Recommend Wheat or Rye Straw.

Mulching the strawberry bed, preferably with clean wheat straw, not only gives protection against alternate freezing and thawing in the winter, put tends to keep the plants from starting growth during unseasonable warm spring weather. It also keeps down weeds and conserves moisture, thus taking the place of cultivation. and helps to keep the fruit clean during the fruiting season, it is pointed out by Frank H. Beach and Clyde S. Holland, fruit specialists in the extension service of the Ohio State univer-Serving all these purposes, mulching thoroughly justifies itself as a strawberry producing practice, in

the opinion of the specialists. Wheat or rye straw, clean, are perhaps the most satisfactory materials for mulching. Oat straw packs tightly and sometimes contains unthreshed grains. Manure, mixed with straw, while sometimes used, is likely to harbor weed seeds and insect pests, and is not always good for the soil upon which the strawberries are grown. In small home beds, rakings from the lawn will serve.

The mulch may be applied either before or after the ground is well frozen, since its purpose is to prevent freezing, thawing, and freezing again.

## Pruning Currant Bushes

by Removing Old Canes

The difficulty in pruning currants is greatly increased by neglect. Systematic annual pruning from planting should be followed. The finest currants are produced at the base of oneyear-old shoots and on one-year-old spurs arising from two-year-old wood. Spurs on older wood produce fruit but it is much less in amount and smaller than that produced on younger wood. Canes, therefore, are usually past their best fruiting after their third

The chief item in current pruning is to remove canes which have passed their best fruiting and to replace them with new canes. A good plan is to remove a definite number of old canes each year and leave an equivalent number of new canes to replace them. When a three-year system is followed, nine canes to a plant makes it easy to keep the balance.

The three-year plan can be operated as follows: At the beginning of the second season leave six strong canes. At the beginning of the third season remove two of these canes and leave five strong new canes. At the beginning of the fourth season, remove one two-year cane, two one-year canes and leave three new canes. Thereafter the oldest canes, those in their fourth year, should be removed and three new canes left to take their place. This will give a plant, at the beginning of the growing season, composed of three canes in their second season, three in their third season and three in their fourth season.

### Dwarf Fruit Trees Are

Becoming Very Popular Of recent years the dwarf fruit trees have come into great favor because of their early fruiting qualities. It is claimed the dwarf varieties fruit in at least half the time it takes the standard tree to reach the fruiting

Now the dwarf fruit trees are be ing made to serve an ornamental purpose, as well as a useful one. They can be planted as specimen subjects the same as the ornamental trees, and at blooming time are as beautiful as any flowering shrub or tree.

When grown for their fruit they are economical, as they take up less ground, and therefore more treec can be planted to the same area. Dwarf trees are also much more easily cared for; spraying and pruning are sim-

#### Spraying for Scale Is Job for Winter Season

San Jose and other scale insects, inluding oyster-shell scale, hose scale and scurfy scale make up a group of formidable plant pests. Often their presence is unknown until the plant has succumbed to their attack. They are tiny scale-like insects of varying shapes, which settle themselves on the bark, leaves and fruit of plants to obtain their subsistence by sucking the sar of the plant.

All sucking insects must be controlled by spraying them with a poison which will kill by entering the breathing pores, or with a substance which will smother them.

#### Blackberry Shoots

The new shoots of blackberries come up from the roots, and in time will form a rather dense clump. The best way to handle this is to take up the thrifty plants, dividing them from the main root underground, and set them where desired. Along a wire fence would be very good, because you could then tie them up to the fence and keep them in convenient shape for handling. This work can be done either in the fall after the leaves drop or very early in the spring.

# OUR COMIC SECTION

# Along the Concrete



## FINNEY OF THE FORCE

## Look Out Andy



# THE FEATHERHEADS

# The Meat Bill Was a "Fact"

