

POULTRY FACTS

POULTRY REQUIRE MINERALS IN FEED

Ohio Specialist Says They Serve Only One Function.

Minerals are as essential in the poultry ration as proteins, or carbohydrates, or any of the vitamins, but they will only serve the functions for which nature intended them and will not take the place of any of the other necessary parts of the ration. Dr. R. W. Bethke of the Ohio agricultural experiment station, told a farm and home week audience at Cornell university.

Doctor Bethke said that mineral feeding may be overdone, and that the poultrymen should use discretion and common sense in making up their poultry ration. He warned poultry men not to take stock in the claims of salesmen that minerals would take the place of such things as vitamins or meat scrap in their ration.

Although the different minerals showed different degrees of availability in the chemistry laboratory they did not show differences in the growth of the chicks. Doctor Bethke said. Egg shell formation seems to be best when the minerals are fed in the carbonate form, he stated.

Doctor Bethke seriously questioned whether there is any difference in the results produced from feeding so-called "organic" or "inorganic" minerals. He says that the question of whether they are "organic" or "inorganic" depends on the individual point of view.

Too little mineral matter in the ration results in leg weakness or rickets in the growing chick which cannot be overcome by cod liver oil or sunlight.

Meat scrap and milk contain large quantities of calcium and phosphorus so when these are included in the ration the supply of minerals from other sources need not be as great as when most of the ration is made up of grains. Doctor Bethke said that grain and protein supplements contain enough of the essential mineral elements, except calcium and phosphorus, so that they need not be provided for separately in the hen's ration.

Red Mites Lower Egg Output During Summer

Get after the red mites in the henhouse now before they cause a drop in egg production. Before the poultry mites become too numerous is the time to treat the roosts and other parts of the house, advises Miss Cora Cooke, extension poultry specialist, University farm, St. Paul, Minn.

Hot weather is most favorable to the reproduction of the mites and they multiply very rapidly, soon causing a falling off in egg production, Miss Cooke says.

These mites are much more harmful than the lice which live on the body of the hen all the time. The mite is a small, spider-like creature which lives during the day in cracks and crevices about the perches and nests and comes out at night to feed on the blood of the fowls.

Geese Should Be Mated in Fall if Possible

From one to four geese to one gander is the range in mating geese. Some ganders refuse to take more than one mate and will remain so mated for life; others will accept two or more if they have no other mates. Two ganders might or might not be enough for eight geese, depending on the temperament of the individuals selected.

Geese should be mated in the fall if possible. Often they will refuse to accept new mates for months after being introduced. Rather than chance that buy eggs for hatching and thus get the pure-bred birds at one stroke. If you do not care to hatch goslings before April or May, buying ganders at this time might prove satisfactory. It all depends on how the birds take to their new surroundings.

Danger in Green Corn

Feeding green corn to chickens may cause trouble and the farmer will do well to proceed with caution in introducing green corn in the ration. To overdo, the green corn may set up digestive disorders, and diarrhea always results in a setback. This does not mean that new corn should not be used.

It will be advisable to start in gradually and increase the amount fed as long as the hens appear to be free from digestive disorders.

Beef Grading and Stamping Service

Activities Extended to Several Large Slaughtering Centers.

(Prepared by the United States Department of Agriculture.)

Expansion of its beef grading and stamping activities to provide service at several additional slaughtering centers, has been announced by the bureau of agricultural economics, United States Department of Agriculture. These centers include Buffalo, Erie, Cleveland, Detroit, and St. Louis. Experienced beef graders will be stationed in the five cities, to grade and stamp carcasses and wholesale cuts of beef for slaughterers at a nominal charge.

Invent Stamping Devices.

The federal beef grading and stamping service was inaugurated at a few slaughtering centers in May, 1927, in response to a widespread demand for a grading service to indicate the quality of beef in a way that would be comprehensible to the consumer. Roll or stamping devices were invented that made it possible to display the federal grade label on each cut of beef. The label informs the consumer that the steak or other cut was designated by the federal grader as U. S. Prime, U. S. Choice, U. S. Good, or U. S. Medium, depending on its quality.

Requests for Service.

The popularity of this government grading and stamping produced a volume of requests for the service from all branches of the meat industry, including slaughterers, wholesalers, retail meat dealers, hotel supply houses, and scores of hotels or restaurants in all parts of the country. The service was made available at Boston, New York, Philadelphia, Washington, Chicago, Kansas City, Topeka and Omaha. The department received requests for further expansion to additional centers, and it is in response to these requests that the July 1 additions are being made.

As evidence of the increasing demand for government graded and stamped beef, the bureau cites that

Prevent Occurrence of Goiter in Lamb Flock

Prevent the occurrence of goiter in lambs by feeding the breeding ewes one or two grains daily of either potassium iodide or sodium iodide, according to a statement by animal husbandry specialists at Michigan State college.

The chemical can be fed to the ewes by mixing it with grain or it can be dissolved and poured over salt which is fed to the sheep. Another method of administering the medicine is to mix one ounce of it with 25 pounds of salt and 25 pounds of steamed bone meal.

Care must be taken in mixing the chemical with the salt and bone meal to get an even distribution of the iodide. It is best not to make up too large a quantity of the mixture at one time.

Sugar-Beet Growers Profit by Research Made by Government

Application of Fertilizer Increases Value of Crop.

(Prepared by the United States Department of Agriculture.)

Application of phosphatic fertilizers to sugar beet fields has increased the annual value of the crop by millions of dollars, members of the National Fertilizer association were told recently by Oswald Schreiner, chief of the division of soil fertility of the United States Department of Agriculture. Comparatively, this is a new practice, and it was introduced into the principal beet-growing states following soil fertility experiments carried on in Colorado and Nebraska by the department.

Since it became evident to the western sugar-beet growers that the application of comparatively small amounts of phosphatic fertilizers would enable them to increase their yields of beets by an average of three tons an acre and thus increase their income by approximately \$18 an acre, the quantity has increased steadily until it is now estimated that phosphates are applied to from 200,000 to 300,000 acres annually. With an increase of three tons to the acre, valued at \$7 per ton, the value of this year's crop will be increased by about \$5,000,000 over what it would have been without the use of fertilizers, said Doctor Schreiner, who estimated the cost of fertilizer at approximately \$700,000.

Doctor Schreiner cited the discovery and demonstration by department

there was an increase of 62 per cent in the quantities of beef graded and stamped during the past five months as compared with the same period a year ago.

Complicated Ration Is Not Needed for Chicks

Rations for young chicks need not be complicated as long as the essentials for good growth and health are present in the feed. The poultryman can make use of the natural feeds, particularly yellow corn and wheat, to good advantage. By adding minerals and animal protein to these feeds and allowing the chicks to have access to green feed and to be outdoors in direct sunlight, the flock owner should be able to keep his chicks free from nutritional troubles.

Chicks fed on white corn and kept on bare yards are likely to develop a nutritional trouble which resembles rump. Sore eyes, blindness and a pale, unthrifty condition are characteristic symptoms of the disease. If rapid growth and early maturity of pullets is expected, a complete ration should be kept before them throughout the summer.

Methods of feeding should not be overlooked, for they may be quite as important as proper rations. Few people realize, for instance, the danger of disease infection and parasitic infestation when chickens are allowed to pick up grain from bare ground contaminated with droppings.

Feeding Fowls for Egg Production Important

Feeding the flock for egg production is an important part of the management of poultry. A laying mash composed of 100 pounds each of wheat bran, wheat middlings, ground oats, corn meal, and meat scrap is suggested. If it is desired to increase the consumption of mash a quantity equal to what the birds will clean up quickly may be fed at noon, mixing the dry mash to a crumbly consistency with skim milk. Scratch grain to be fed with this mash consists of 100 pounds each of wheat, cracked corn, and heavy oats. The quantity of grain to feed for 100 hens will be about four pounds in the morning and eight pounds at night.

Sheltering Machinery Most Profitable Plan

The actual monetary loss in depreciation of farm machinery left unsheltered through all sorts of weather is only one form of loss the owner of the machinery suffers, says J. C. Wooley, chairman of the department of agricultural engineering of the Missouri College of Agriculture. In fact, the loss from a poor quality of work, loss of time when time is valuable, loss of crops, and the loss of energy and temper which results from a struggle with a rust-laden machine is often a greater factor than the monetary loss in depreciation of machine.

specialists of the remarkable response of western sugar beet soils to phosphatic fertilizers as one of numerous examples in which the research work of the department has been of great practical benefit to farming regions of the United States.

Cattle May Contract Tuberculosis From Hogs

While the danger that cattle may contract tuberculosis from hogs is not so great as it is that hogs may contract the disease from cattle, it is possible that cattle will contract the disease from hogs and when both are in the same pasture it is very likely that cattle will contract the disease, provided, of course, the hogs have the disease.

Cattle will generally refuse to eat the manure voided by hogs, while hogs will very readily eat the manure voided by cattle, and on this account it is more likely that hogs will contract the disease from cattle than it is that cattle will contract it from hogs.

FARM NOTES

In agriculture, as in other industries, the margin of profit on each unit produced may narrow as volume increases, yet not adversely affect the total income.

The DAIRY

VALUE OF GRAIN FEED IS SHOWN

Figures Prove That Good Rations Make Best Return.

G. W. Tallby, Jr., of the New York State Agricultural college, presents records from dairy herd improvement associations which show that liberal feeding of grain to good cows gives the dairyman good returns in summer and fall as well as during the winter.

The figures prove that the average yield of milk for dairy cows in New York is 5,500 pounds of milk. In one group of cows with less than the average production, or only 5,261 pounds of milk, each cow was fed an average \$20 worth of grain and \$35 worth of hay, silage, and pasture, or \$55 in all for feed. The average value of the cows' milk in this group was \$146, or \$91 more than all costs of feed.

In a group of cows with the average production of 5,500 pounds of milk, the value of the milk was \$106. The total feed cost was \$71, made up of \$30 for grain and \$41 for roughage, and the net return was \$95.

A group which produced, on an average, 7,771 pounds of milk and fed \$50 worth of grain and \$44 worth of roughage, produced a gross return of \$213 against a feed cost of \$94, or a net return of \$119. Similarly, two other groups, producing about twice the state average in pounds of milk, or 10,254 pounds and 11,937 pounds respectively, were fed \$85 and \$99 worth of grain, and \$42 and \$46 worth of roughage, with total feed costs of \$127 and \$145 as compared with milk values \$290 and \$339 each, and net returns of \$153 and \$194.

In other words, Mr. Tallby points out, the more grain, the more milk, and the greater the money return. From this he deduces that it pays, and pays well, to keep efficient cows and to feed them liberally on grain. A large allowance of grain keeps the cows in good condition and makes them enter the winter season in good condition to supply the milk needed to hold the milk market when it will bring its best returns.

Chop Hay With Ensilage Cutter to Save Waste

Many dairy and live stock farmers have found by practical experience that chopping hay with an ensilage cutter not only saves a considerable amount of the hay from being wasted, but also helps towards getting more feed value out of that consumed, due to being more easily mixed with other feeds. Practical tests with dairy herds show that two tons of chopped hay gave almost as much returns as three tons fed long. Often the hay is chopped just as it comes from the field and the chopped feed is blown directly into the mow. About the same amount of curing is necessary whether mowed in the chopped or whole form. This has the additional advantage that the day's use of the ensilage cutter is doubled or trebled and thus its cost per hour brought down for the silo filling.

Cutting Down Cow Feed Lowers Yield of Milk

Trying to make a dairy herd profitable by cutting down on the amount of feed or by not supplying the amount of protein that is required for economical milk production is up-hill work. In fact, it cannot be done. Cutting down the protein supply below actual requirements is a good deal like trying to make a roadbed by putting half as much cement in the concrete mixture as is actually required for good results. In one case it results in low milk production and little or no profit above feed cost, and in the other, in a worthless road which represents a complete loss not only of the material used, but also of the labor employed in producing and laying the defective concrete.

Outline of Economics of Permanent Pastures

Let us now sum up the economics of permanent pastures: There is a great saving of labor, since no cultivation is necessary and the live stock harvest the crop. A highly digestible protein is produced on the farm at a very low cost from cheap nitrogen carriers easily and cheaply carried, rather than having to buy high-priced concentrates. Land not well suited for cultivation can be used. The acreage cultivated is reduced, cereal production is curtailed, and markets are strengthened by lack of over-production. More live stock can be supported to the acre, more milk and meat can be produced a head. Every acre is made to do its best.

OLIVE STOCK

SILAGE FOR BABY BEEF FEED FAILS

Not Profitable Where Yield of Corn Is Low.

Corn silage is not a profitable feed for fattening baby beef calves under northwestern Minnesota conditions, according to the trials conducted at the northwest experiment station of the University of Minnesota at Crookston. The reason given is the low yield of corn silage obtainable in the northern part of the state, for it has been demonstrated that silage feeding is profitable in the corn belt where yields are normally high.

Calves fed a ration of ground barley, linseed oil meal and alfalfa hay made greater daily gains as well as cheaper gains, and were valued at 15 cents per hundredweight higher than calves fed the same ration plus corn silage. The feeding period was 196 days, lasting from November 27 to June 11. All of the calves were purchased at the same price. The margin per head over feed cost for the calves fed silage was \$22.37, while for those fed the same ration without silage it was \$27.71.

In these same trials, but with different lots of calves, it was learned that ground barley alone is more efficient than a mixture of ground barley and ground oats. It was also shown that feeding ground oats during the first half of the fattening period and ground barley the last half is not as satisfactory as feeding ground barley throughout.

It was concluded that the advisability of adding ground oats to a ration of ground barley, linseed oil meal, alfalfa hay and corn silage would depend upon the relative prices of oats and barley. At the values used in this trial, 38 cents for oats and 52 cents for barley, the addition of oats did not prove profitable.

Vaccination Tests at Experiment Stations

Vaccination tests at Ames, Kansas, and other experiment stations, indicate that pigs even a few days old can be immunized against cholera in a high percentage of cases and with pigs approaching weaning (seven to nine weeks old) immunity is as certain as with old hogs.

The explanation offered by careful observers of this apparent variation between experiments and practice generally hinges on this fact: Pigs up to six or eight weeks of age have tender, pliable skin and soft flesh. With ordinary vaccinating practice, where rapid handling and treatment is commonly the rule, it is probable that among certain individual pigs there is more or less leakage of serum from the hole through which it was injected. If this is true, it does offer a reasonable and plausible explanation why vaccination is uncertain with young pigs. This fault or error should not apply to pigs eight weeks old or older especially when the job is carefully done—with speed not the dominating thought while the job is being done. It appears to be sound policy to vaccinate pigs when the younger ones reach two months of age.

Clover in Stubble Is Cleanest Hog Pasture

Clover in wheat and oat stubble is usually the cleanest pasture on the farm. This is a good place to put your pigs. The sanitation program is spoiled if big spring shotes, fattening hogs, or old sows are turned into the stubble fields after threshing.

At this time of year sanitation is very necessary. Tests of Dr. H. B. Raffensperger have shown that worm eggs incubate rapidly during warm weather. Eggs dropped now from wormy spring shotes or old hogs may ruin next fall's pigs. A few fall sanitation pigs on stubble fields, if the plan is rigidly adhered to, will not endanger the spring pigs materially.

Use of Soy Beans Not Favored for Hard Pork

One of the feeds which is receiving attention is soy beans and unquestionably they furnish a very high protein supplementary feed. Recently, however, the packer has been putting in his "two cents' worth," regarding soy beans and his song doesn't sing quite as well as some of us would like to have it. The packer states that the flesh of swine fed soy beans as a protein supplement is inclined to be soft and that not only the meat cannot be cured right, but that the lard will not harden as will the carcass of the animal that has not been fed soy beans.