

FARM AND ORCHARD

Notes and Instructions from Agricultural Colleges and Experiment Stations of Oregon and Washington, Specially Suitable to Pacific Coast Conditions

Mushroom Growing Easily Overdone.

Oregon Agricultural College, Corvallis—"Although there is no larger market for mushrooms than there has been for some time, there is a renewed interest in the subject of growing mushrooms in commercial quantities," says Professor A. G. Bouquet, head of the market gardening section of the Oregon Agricultural college. "This renewed interest is shown by the large number of inquiries received at this office concerning cost of production. I am at a loss to know where all these prospective growers expect to market their mushrooms even should they succeed in growing them successfully."

"Of course it is well enough to grow a small amount for home use, but the production of mushrooms in large commercial lots will have to encounter the obstacle of limited markets. Mushrooms are a delicacy that is not relished by everybody alike."

"It is also true that there is a large supply of natural grown mushrooms near many of the towns in the Willamette valley. Small patches of edible mushrooms are found near Corvallis, and furnish a source of supply from which those who are fond of this delicacy may go and help themselves. Doubtless some persons are prevented from availing themselves of any natural supply by the fact that there is danger of securing poisonous varieties. But the edible mushrooms are well known to many persons in any large community, whose assistance can be secured by others who wish to supply the table occasionally with mushrooms."

"Catchy advertisements of phenomenal profits in growing mushrooms for the market are doubtless chiefly responsible for the unusual desire of so many people to engage in the mushroom business. These firms have spawned to sell, and of course the profits of the advertisers are in selling it. The cost of the spawn itself is no inconsiderable item, and for a mushroom bed of fifty feet square its cost is \$2.00. The requisite to success in growing the mushroom artificially is a properly prepared and evenly heated bed. Most persons who depend upon heating the bed with manure, fail to appreciate the importance of its elasticity. Unless it is thoroughly mixed and shoveled over several times it is very likely to heat in spots, some of which will be too hot and some too cold. Under these circumstances the amateur is greatly discouraged with his results."

"Beginners in mushroom growing should make their start on a small scale. In this way success is more likely and in case failure comes it does not mean a heavy financial loss."

"Having studied the question for several years and having observed how it works out experimentally with the amateurs, I feel justified in saying that those who contemplate engaging in the industry would find it more profitable to plan a general home garden and carry the plan carefully to a conclusion."

"This department will be glad to answer any questions concerning either the home garden or the mushroom growing that are sent to this office."

Most Profitable Age and Types of Beef Cattle.

Oregon Agricultural College, Corvallis—Successful livestock growers as well as dealers in livestock and meats, must know the market demands and then grow animals that will meet them. This is the cardinal principle of the industry as announced by Mr. Forester, expert buyer for the Union Meat company, in his livestock demonstration before the Oregon Agricultural college short course students. Farmers that raise livestock for beef and pork, often aim at the production of animals as big and fat as they can be made. When those farmers take the stock to market they are disappointed and often angry because it brings less per pound than the smaller animals. Beef animals are sold with the highest margin of profit at from one to two years of age. A grower recently sold a yearling steer in the city market for \$95 at the same time that another grower sold a two-year-old for \$117. There is no profit at all in carrying beef animals after they are two or three years old.

It was further pointed out that types should be developed that carry high percentages in the choice parts of the carcass. Everybody wants porterhouse steak and prime ribs, and these cuts must bear the loss of the chuck, which is about 42 per cent of the dressed beef. And then people wonder why beef is so high. But growers will profit by knowing the facts, if they choose their beef types accordingly.

Crop Pest Report Is Used As Text Book.

Oregon Agricultural College, Corvallis—What insect and disease pests attack their crops and how to control them, are being learned by the school children of Kennewick, Washington, from the Agricultural college biennial crop pest report, which is used as a text book. Requests for copies of the report were made by students and teachers of the Kennewick school, who state that it contains the most complete, reliable and practical information of any publication that they have found.

The report was written by the departments of plant pathology and entomology, from information collected by observation and experiments extending over several years. It contains a description of approximately all plant diseases of economic importance in the Northwest, together with the most reliable and economical methods of control. It also contains a record of the most important insect pests of this region and the most approved measures of control. The pests are identified by description and illustration, and their habits and the nature of the injury they do are clearly indicated. With this report as a guide any intelligent grower of field, fruit or garden crops, can identify the worst pests and apply effective control measures.

The report is of very great importance to growers throughout the Northwest; its intelligent use will result in a great saving of time, labor, material and produce. Copies may be had free by sending requests for them to the secretary of the Experiment Station, O. A. C., Corvallis, Oregon.

Identify the Insect, Then Apply the Spray.

Oregon Agricultural College, Corvallis—Sprays should not be applied to plants to rid them of insects until it is definitely known that the insects are harmful. The mere fact that they are present in considerable numbers is not sufficient warrant for spraying. They may be harmful, but again they may be either neutral or beneficial. If they are injurious, they should be combatted, but if they are beneficial, they should be encouraged, since it is definitely known that the destruction of the natural enemies of harmful insects has done much to increase the numbers of harmful pests.

"Begin the work of control by carefully studying the insect," says Professor H. F. Wilson, entomologist of the Oregon Agricultural college. "If you can identify the insect, and it is harmful, then apply the standard spray according to directions. If you cannot identify it, then note the effect it has on the plant. If the plant shows signs of insect feeding, the visitors that cause them are eating insects and can be controlled by arsenical sprays. If the plant shows curled leaves, wilted surface, creasing, uneven and discolored tissues, but no nibbled areas, the visitors are sucking insects and can be controlled by contact insecticides. But if the plant shows no signs of damage the visitors are probably either neutral, or predacious insects in search of harmful insects that they feed upon. The plant often shelters the hunter as well as the game."

POULTRY KEEPERS' DON'TS, AS SEEN AT O. A. C. SHOW

Oregon Agricultural College, Corvallis—"Don't use mongrel stock," was one of the first signs on entering the Utility Poultry Show held by the Poultry Department of the Oregon Agricultural College last week. Professor James Dryden thus expressed his estimate of the value of mongrel fowls. He has resorted to a limited and scientific use of cross-breeding in his work of developing a new variety, but only mongrels are different considerations.

"Don't use immature stock," was the next sign displayed at the show. Both size and vitality are affected unfavorably by mating over young chickens. Vitality is an important factor in heavy egg-laying.

"Don't start too big" comes next. No amount of knowledge and enthusiasm can make up for lack of experience, and mistakes are sure to be made in the beginning. If the beginning is on a large scale, some of these mistakes will prove very serious. Therefore, they should be made with only a few fowls. When the business has grown the mistakes can be avoided.

"Don'ts" will not conduct a profitable poultry business, but the intelligent observation of these three will steer the beginner clear of some of the most disastrous, though alluring, mistakes.

PROFIT BY GOOD CARE

Poultry on the Farm Receives Indifferent Treatment.

Close Watch Should Be Kept on Business All Round and Every Comfort Provided to Prevent All Infectious Disease.

(By R. G. WEATHERSTONE.)

No matter how good the stock may be if they have not the proper care they will pay you no better than mongrels. Poultry on the farm, as a rule, receives indifferent treatment.

What does "care" mean? It means a close watch on the business all round. It provides every comfort, prevents disease by keeping the premises perfectly clean, never overcrowds, and keeps the fowls busy, sorts out the drones and gives the workers better attention. In short, "care" means using business principles in every sense of the word.

The farmer is not giving the proper care when he allows his fowls to roost on trees, in wagons, wagon sheds, or on the board fences. The proper care is not given if the appetites and conditions of the fowls are not studied.

System and regularity play an important part in care. Economy in labor, the saving of steps, the saving of muscles, the saving of time—all are important.

Shiftlessness causes expensive experiences. There is sure to be profit in anything we take care of. Success is accorded to management. Profits depend upon the quality and quantity of brain work put into the enterprise.

If a man performs his work in a mechanical way he will not be apt to do it well. There are too many who go by "luck." They do not stop to think. They do not take notice of the little matters. They are always hurrying to get done.

It is said quality makes prices, but it costs considerable labor and brains to make quality. Good management curtails expense. Successful poultrymen use good common sense methods, some others but little method, and alas, some not any method at all.

Hard luck is generally brought about by mismanagement. Disorder creates disgust. Study and care, and not luck and big talk, are the elements of success.

To quote Judge Brown: There are too many poultrymen who let their enthusiasm go down as the mercury in the thermometer goes up or down. The men who make the marked success in poultry raising are those who never flag in their attention—those who know that the increased labor and close attention hot weather brings must be religiously observed, the same being the case when the cold weather is with us. It is the man or woman behind the hen rather than the breed that brings success.

Scrub treatment will bring about scrub results. The best paying breed is the one that is best cared for. Zeal in the prosecution of the work should be the characteristic of every poultry breeder.

In conclusion, it must not be forgotten that success depends on management. Business attention given to a flock of properly housed hens would be a revelation to many, especially to the farmers themselves.

Two Sheep Pastures.

Sheep owners should realize that having two or more feed lots is economy. As soon as one pasture is picked bare, a change should be made. In this way the pasture becomes freshened and the weeds will be kept down better. Sheep do much better on less ground when this system is used and many more sheep can be kept.

Avoid Scaly Leg.

Don't allow your chickens to have scaly legs. Clean and apply a good disinfectant, then rub in plenty of good grease.

BREEDING STOCK FOR DAIRY

Cow Is Machine to Convert Food Into Milk—Should Possess Large Udder and Strong Constitution.

In selecting dairy cattle the real test must be the scales and the Babcock tester. The cow is a machine to convert food into milk; thus she must have a large middle and a strong constitution to insure the best results. She must also have a large udder, large milk wells, large crooked milk veins and good-sized teats.

Her head should be clean and angular in appearance, with the eyes standing out prominently. The neck should be rather long and lean; the shoulders pointed and the backbone rather prominent. The skin should be loose and soft to the touch. In selecting herd bulls either mature animals which have already demonstrated their worth as sires or younger animals from high-testing dams and sires only should be used.

The best and surest results will always follow the use of a mature sire which has sired heifers with

REQUIREMENTS FOR SUCCESS

Clean, Dry Place With Plenty of Fresh Air and Sunshine Among Essentials in Wintering Sheep.

There are four very essential things necessary in wintering a flock of breeding ewes. The first is a clean, dry place with an abundance of air and all the sunshine possible. The house or shed must be sufficiently warm for the lambs to do well from the start, should they come in March or February, but there must not be a hothouse warmth.

The second essential is pure water, and plenty of it. Sheep that eat snow for water will be found in a very different condition from those which have access to water at all times. Remember that a sheep drinks but little



Rambouillet Ewe.

at a time, and often. A flock having pure water is seldom found with parasites, the worst enemy with which we contend.

The third essential is feeding. The writer, says an exchange, has obtained the best results by feeding hay and clover mixed. The sheep like this very much, and if the mixture is put into the barn in good shape they will more than thrive on it. Sheep relish a good corn fodder, and it should be given to them at least once a day.

About six weeks before the ewes are due to lamb they should be fed a mixture of bran one part and oats two parts.

Salt for the Chickens.

Salt, in aiding digestion, also keeps the whole system of the fowls in good working order. The blood is kept from impurities and the birds will be less likely to suffer from colds, cancer or roup, also the gizzard worms find it impossible to live in salt-fed food.

Salt can be fed in the scalded oats. A teaspoonful to each eight or ten quarts of oats is sprinkled over the top of the oats and then boiling water poured over them, being careful not to use more water than the oats will readily absorb. Stir the mixture well.

Pays to Cull the Sows.

When the breeder culls out his sows that produce stock that never attains good size; when he promptly sends to the block the sow with small litters; when he gets out of his herd the peevish hogs and the hogs of low vitality, then he will hear less about the relative advantage of the crossbred hog.

Will Make Colt Thrifty.

Cooked roots, mixed with wheat bran or ground oats or barley occasionally will go a long way in making a better and more thrifty colt.



Aberdeen Polled Angus, Cow and Calf.

so rare that when we do find one he should die only of old age.

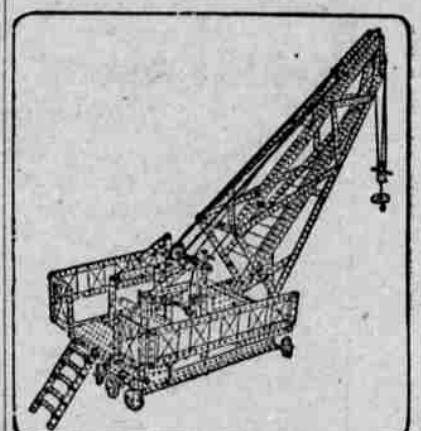
All breeders of dairy cattle should secure yearly tests on each and every cow in the herd. Shorter tests do not really mean very much.

For the LITTLE ONES

INSTRUCTIVE FOR THE BOYS

Many Pretty Things May Be Constructed by Skillful Use of Toy Steel, Just Put on Market.

Toy structural steel, from which an ingenious boy may build anything that a real engineer would make out of real steel members, is now being widely advertised and is a feature of the holiday exhibits. Some of the things that may be constructed in little by the skillful use of this material are bridges, derricks, engines—anything, in fact, from a toy wagon to a miniature printing press. A writer in the American Exporter (New York) commends this as a realization of the young mechanic's idea to "build something himself." The boy with a mechanical mind, he says, is seldom satisfied with shop toys. He would

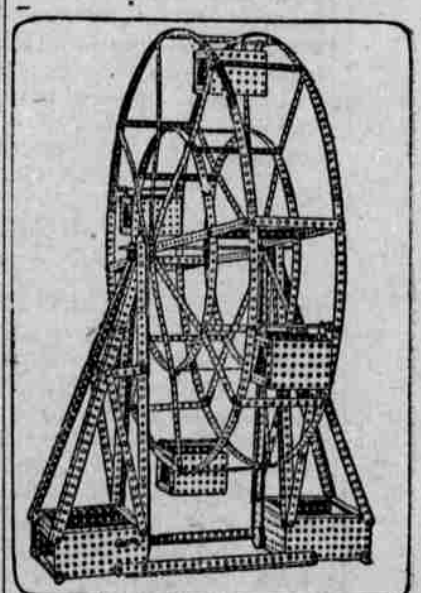


A Derrick Built of Toy Structural Steel.

a hundred times rather take a hammer and nails, and with what odds and ends he can find work out some idea of his own than to possess a whole houseful of ready-made locomotives and fire-engines, which, to his critical eye, lack many important details. The writer goes on:

"These outfits consist of strips of steel varying in length and having holes punched at equal distances from end to end. Included in these sets are also gears, pinions, pulleys, flanged wheels, axles, beams, etc., which give the boy all the parts necessary to build up almost any kind of a miniature machine. The strips are held together by means of small screws and nuts, and the structures that can be built in this way in a remarkably short space of time by any boy are declared to be surprisingly real in appearance. The various metal strips are formed in imitation of structural steel beams, and the young engineer in this way acquires a knowledge of the strength of materials and elementary engineering practice which many weeks of study from books would probably fail to impress upon his mind. He also becomes familiar with the forms of many of the well-known works of engineering and acquires a knowledge of the subject which cannot fail to be of great value to him in later years, even though he may not follow the engineering profession."

"Each piece of material . . . is nicely finished with smooth edges and rounded corners and nearly all the parts are nickel-plated. Everything which the boy would require is supplied with the outfit, even to a quantity of good stout string, for even this is not always obtainable in the home. A complete manual of instruction is also furnished with each set, which shows cuts of 80 different models that can be built."



Ferris Wheel Made From Toy Steel Parts.

"Small motors, countershafts and transformers, also supplied, enable the boy to construct his own power plant."