The Great Outdoors

Where Bread, Meat, Clothing, Health and Vigorous Humanity are Produced

Control of Animal Parasites Studied

Coal Tar Creosote Solutions Found to Be Best.

(Prepared by the United States Department of Agriculture.)

Various methods of treating horses for infestations with biting and sucking lice were tested by the bureau of animal industry, United States Department of Agriculture, during the last fiscal year, in the course of studies in the treatment and control of external parasites of live stock. The best results were obtained by dipping or spraying with coal-tar-creosote solutions or arsenical dip.

Coal-tar-creosote solutions are found on the market as stock dips under various trade names with instructions on the labels for dilution. The arsenical dip is the same as that used for destroying cattle ticks, and is used in the same dilution.

Tests with sulphur-dioxide gas to cure sarcoptic mange proved to be unsuccessful. Treatments with gas concentrations as high as 10 per cent and consisting of two hours' exposure on four different days at five-day intervals failed to cure advanced cases. Other degrees of concentration and with treatment at different intervals likewise gave negative results.

The Department of Agriculture is making exhaustive investigations of the numerous kinds of parasites—both external and internal—that affect domestic animals, and also maintains an "index-catalogue" of the published literature on parasites, which is believed to be the most complete of its kind in existence. It includes data on animal parasites found in all parts of the world.

Eliminating Horse From Metropolitan Centers

"City use of horses is on the decline," says Dr. Carl W. Gay of the University of the State of Ohio, in a recent lecture at the New York State College of Agriculture at Ithaca. He says, on the other hand, that the reverse is true on farms.

Doctor Gay said that the horse breeders of the country have been following a policy of blind optimism by making themselves believe a horse boom lies around the corner. The traffic problem in the large cities is so acute that the horse-drawn vehicles are becoming fewer and fewer, so that the breeders must look to the farmer as a purchaser.

In order to fulfill the farmers' demands the small mares should be bred as well as the larger ones to obtain the desirable wagon-type of horse. The wagon type is becoming more and more recognized as the most desirable farm horse, as it is a horse which combines draft ability with speed on the road. For the farmer with no pride of ancestry or hope for posterity, the mule is even more efficient than the horse, Doctor Gay says.

While Doctor Gay is pessimistic about the future use of the city horse, he is just as optimistic when looking at the farm-horse proposition. A sane, safe policy for farmers of the East is to breed their own replacements. "Deal in the present needs, not in uncertain features" is the speaker's advice.

Brome Grass a Valuable Crop for Pasture Land

Brome grass is more valuable for pasture than for hay. It will do fairly well on very light soil, as it stands drought well. It starts slowly. For this reason sow with clover and timothy. Sow with nurse crop.

The clover and timothy make most of the crop the second year; after that the bromus makes most of the crop. If sown without other grass, sow 10 to 15 pounds of seed per acre. In a mixture as suggested above, sow five or six pounds per acre.

Sweet clover and bromus make a very good mixture for pasture. Sow from six to eight pounds sweet clover, four to five pounds timothy and five pounds bromus per acre. It is not hard to get rid of.

New Pest of Bees Found in a Maryland County

A new pest of bees, Braula coeca Nitzch, popularly called the bee-louse, has been found present in considerable numbers in Carroll county, Maryland, and in a few other places in the United States. It is undoubtedly imported from Europe with queen bees, and while it is not, so far, to be regarded as a serious menace, beekeepers will do well to take steps to eradicate it from their colonies when discovered.

Braula is not a true parasite, according to the bureau of entomology, but it is capable of weakening a bee colony by taking its food and by tormenting the queen bee. It lives on the honey carried by the bees, not on their blood, as was at one time supposed. It is found singly on the workers, and in numbers on the queen bee, but seldom on drones.

United States Department of Agriculture Circular 834, "The Bee Louse, Braula Coeca, in the United States," by E. F. Phillips, apiculturist, contains a description of the species, its distribution, feeding habits and methods of control. This circular may be obtained, as long as the supply lasts, by writing to the United States Department of Agriculture, Washington.

Aid Greenhouse Men in War on Insects

Much Progress Has Been Made During Last Year.

(Prepared by the United States Department of Agriculture.)

Of especial interest to greenhouse men are the studies of greenhouse insects and problems of greenhouse fumigation conducted by the bureau of entomology of the United States Department of Agriculture. Distinct progress has been made in this field during the past year. Among some of the insects on which work has been done may be mentioned the larger bulb fly, the cyclamen mite, the Cattleya fly, and the tip moth of pine seedlings.

Life history studies of the larger bulb fly have been started, and experiments conducted in the disinfection of bulbs from the insect. The larvae appear to be very resistant to vacuum fumigation with carbon disulphide at the rate of 4 and 10 pounds per 1,000 cubic feet of space. Control experiments intended to test the efficacy of nicotine, sulphur, oil emulsions, soap sprays, pyrethrum, hydrocyanic-acid gas, carbon disulphide, etc., against the cyclamen mite have been begun. Fumigation against the Cattleya fly with hydrocyanic-acid gas has not thus far proved of value in any of its stages, and other control methods are being studied.

Investigation in the general field of fumigation have included the testing of various dosages and exposures on a variety of plants, such as orchids and various bulbs. The killing power of calcium cynide for certain greenhouse aphids compares favorably with equivalent dosages of sodium cyanide. Under greenhouse conditions it was found that overnight fumigation at the rate of ¼ ounce of calcium cyanide to 1,000 cubic feet of space gave 100 per cent kill for three species of aphids. A higher proportion, combined with high humidity, caused severe burning of many varieties of plants.

Pennsylvania Improves Cattle Feeding Methods

Cattle feeding methods in the Lancaster district have been changed completely in the past ten years because of the results obtained in steer feeding at the Pennsylvania State college, states Dr. John M. Thomas, president of the college, in a report on "The Service of the Pennsylavania State College to the Commonwealth."

"The old method has been changed to the modern method as developed at the experiment station," says President Thomas. "According to the best available information, only 10 per cent of the cattle feeders in the Lancaster district had silos on their farms in 1914. Approximately 80 per cent of all the cattle feeders in that district are now using silos in their steer feeding work. This change in the method of feeding has resulted in more economical production and has meant many thousands of dollars to the cattle feeders of Pennsylvania.

"The experimental work in maintaining a beef-feeding herd has been a stimulus for the establishment of more such herds in Pennsylvania, the number of which is constantly increasing."

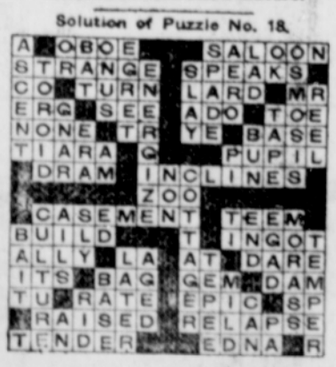
Value of Silage Varies With the Price of Corn

Silage made from corn that will yield 50 bushels per acre is worth from $6 to $6.50 per ton, depending when the corn was put into the silo.

Corn that is put into the silo when it is denting and all the leaves are green will weigh more than it will when it is more nearly ripe and some of the husks and leaves have begun to dry.

The value of a ton of silage always varies with the price of corn per bushel and also upon the quality of the corn. When corn is put into the silo before it is in the glazing stage, it is not worth as much as it would have been if it were more mature.

Solution of Puzzle No. 18.



Get Up and Dust

Frank Kirk is employed at the Oaco orchard, near Monroe, and there is to be applied the first insecticide from an airplane in this part of the country, though it has been a success in cotton fields of the south and some forests where trees were threatened with destruction. Frank was home for his daughter-in-law's funeral.

About May 1 Entomologist W. J. Chamberlain of O. A. C. will supervise a dusting with arsenate of lead from two airplanes. Special hoppers in the aircraft will make possible the spraying of from six to ten acres a minute.

Chamberlain expects to spray for the alfalfa weevil in eastern Oregon the latter part of May.

Save Resistant Chestnut Trees

Blight Is Steadily Spreading Over Country, Killing Many.

(Prepared by the United States Department of Agriculture.)

The chestnut blight is steadily spreading over the country, exterminating the American chestnut as it moves. The financial loss has been very heavy for owners who failed to cut their dead chestnut before it deteriorated, and the United States Department of Agriculture and state forestry departments have been active in advocating timely utilization.

Resistant Trees.

However, a few chestnut trees have appeared to show a marked degree of resistance to the blight, and it is desirable that the more resistant trees be located and preserved. Some of these may prove to be the starting pointed for a new growth of chestnut. A tree should have resisted the blight under natural conditions for at least ten years before it can be regarded as worthy of consideration as a resistant tree. Many trees will throw off blight cankers and apparently be doing well for a few years and then quickly succumb to the disease. The office of forest pathology, in the bureau of plant industry of the United States Department of Agriculture at Washington, is interested in receiving reports of exceptionally resistant American chestnuts, that is, trees which survive after nearly all of the chestnuts in the vicinity have been killed. Unusually resistant trees are recorded and examined at some later date. Nuts and grafted trees from the most promising are planted in an experimental orchard at Bell, Md., for further testing.

Interested in Trees.

This office is also interested in reports of Japanese and European chestnuts which have survived the attacks of the blight. The removal of infected limbs and the cutting out of trunk cankers on these foreign chestnuts, will materially assist them in throwing off the disease. The office of forest pathology is, however, primarily interested in trees which are naturally resistant.

THE MARKETS

Portland

Wheat — Hard white $1.55; hard winter, $1.46; soft white, $1.51; western white, $1.50; northern spring, $1.47; western red, $1.47.

Hay—Alfalfa, $19@19.50 ton; valley timothy, $20@21; eastern Oregon timothy, $22@22.50.

Butterfat—42c delivered Portland.

Eggs—Ranch, 23@26c.

Cheese—Prices f. o. b. Tillamook: Triplets, 27c; loaf, 28c per lb.

Cattle—Steers, good, $9.50@10.00.

Hogs—Medium to choice, $12.25@13.50.

Sheep—Lambs, medium to choice, $11.50@14.

Seattle

Wheat—Soft white, $1.53; western white, hard winter, western red, $1.50; northern spring, $1.53; Big Bend bluestem, $1.83.

Hay—Alfalfa, $24; D. C., $28; timothy, $26; D. C., $28; mixed hay, $24.

Butterfat—45c.

Eggs—Ranch, 27@32c.

Hogs—Primes, $13.75.

Cattle—Choice steers, $9.25@9.85.

Cheese—Oregon fancy to retailers, 27c per lb.; do standards, 25c; Washington fancy triplets, 24c.

Spokane.

Hogs—Good to choice, $13.25@13.35.

Cattle—Prime steers, $9.50@10.50.

We're Getting the Africans' Goats

About the 1st of May 117 choice Angora goats from South Africa are expected to arrive at a New Jersey port. Later they are to be sold in Texas, America's chief Angora goat state. Some of them may come to Oregon.

Goat men of South Africa, fearing American competition in the mohair markets of the world, have been trying to get their government to prohibet exportation of the animals. It has been a work of much difficulty to get the present shipment of choice breeding stock out of the colony, but American pertinacity has won.

Better Than Wheat

When S. F. Zysset started in the Angora goat business how the "wise ones" derided that spindling little kid which Sam paid $25 for? But Sam knew his "kid" and for 25 years has been making money from his purebred goats. He had faith and stood on it.—Scio Tribune.

Different Varieties of Common Vetch Compared

Common vetch and its varieties is the subject of a new publication just issued by the United States Department of Agriculture as Department Bulletin 1289. The bulletin discusses and compares the different varieties as to seed and straw yield, rate and time of seeding, method and depth of seeding, viability of seed, winter hardiness and numbers of other factors.

Common vetch is a native agricultural crop of the Mediterranean region but was introduced into the United States as early as the Eighteenth century. It is rather exacting as to temperature and soil conditions and the portions of the United States to which it is particularly adapted are limited. As a commercial crop it is confined to the region in Washington, Oregon, and California having mild winter temperatures. Only the most hardy varieties will survive the average winter of the South Atlantic and Gulf Coast states. Not enough experimental work has been done to determine the limitations of the several varieties in the last-named region, but it seems probable that when properly handled the most winter-hardy strains can be grown in limited areas at least.

A copy of the bulletin may be secured upon request, as long as the supply lasts, from the United States Department of Agriculture, Washington, D. C.

Diet of Baby Chicks Is Started With Sour Milk

After delaying feeding till the chicks are at least 48 hours old, offer them a drink of sour milk. Keep them in a pen provided with scratching litter of clean alfalfa leaves. After milk has been before them two hours, feed sparingly of scratch grain consisting of six parts cracked yellow corn, two parts cracked wheat, and two parts cracked kafir.

When the chicks are a week or ten days old, a mash feed should be provided in addition to the milk and scratch grain, using 30 pounds bran, 30 pounds shorts, 25 pounds yellow cornmeal, ten pounds meat meal, and five pounds bone meal. Mash may be before the chicks at all times after they are past two weeks old. Grain may also be kept before them at all times after they are three weeks old.

Keep a close lookout for lice and mites, feed carefully, provide fresh air and sunshine.

Spuds Must be Labeled

Potatoes sold in lots of 50 pounds or more must have the name and address of the grower and the grade stenciled on the sack, according to the new potato grading law now in effect in Oregon. The United States standards for table stock were adopted in Oregon with the exception that "culls" are called "no grade." Certified or standard seed are designated as such.

Only lots of ten tons or more need to be inspected. Provisions for enforcing the acts are included in it making it a misdemeanor to sell potatoes that are not properly marked. Copies of the new grades may be obtained from the county agent.

There is a stiff fine for selling 50 pounds or more without the grade and the grower's name and address on the sack.

A summary of the potato law, giving the standard grades, etc., can be had by applying to the state market agent.

Get a copy, if you have potatoes for sale, and avoid a fine or a jail sentence.

Gauge Value of Seed by Germination and Purity

Alfalfa seed is regularly advertised in various papers which reach farm homes, at $7 to $9 a bushel. We have each year examined such seed and find that the cheapness is an illusion. By way of illustration the following details may be of interest: A sample just tested is quoted at $7 a bushel, the price actually paid for a six-pound lot was $1.25. The purity analysis on this test was 74.5 per cent, the germination test 49 per cent, hard seed 12 per cent, that is, live seed 61 per cent. The per cent of pure live seed in that sample is 45.4.

A good sample of alfalfa seed should have a purity of 99 per cent or over and a live seed per cent of 95 or over, that is, a pure live seed per cent of 94. At 21 cents per pound for 61 per cent of live seed the cost of good seed is 32.36 cents per lb. Besides this we received 26,000 weed seeds with each pound, 575 of which were dodder.—Anna M. Lute, Analyst, Colorado State Seed Laboratory, Fort Collins.

Even the poorest garden spot contains "buried treasure" for the real gardener.

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Perhaps the farm home garden is often a failure because it is not taken seriously enough.

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Resolutions making it unlawful to levy or collect a tax from agriculture or livestock for a period of 15 years, or until 1940, have been adopted by Pomona grange of Yamhill county.

Thirty-six head of fine Hereford cattle belonging to County Judge T. S. Cornelius of Astoria have succumbed before a malady which attacked the herd last winter, leaving only seven survivors.

Dissolve ½ ounce of corrosive sublimate in 12 gallons of water. Saturate the ground around cabbages with this solution three days after planting and three more times at intervals of ten days and you will have no cabbage maggots.

The 1920 census shows that a larger proportion of the children attend the public schools in the country than in the cities.

Dairying Pays in Western Oregon

Good Stock, Home-grown Feed and Care Have Their Reward

There is little profit, usually, in a dairy herd of five or six cows. O. A. C. investigators who have made a study of receipts and outgo in small Oregon dairies declare that high producing cows should be kept in large enough units to keep down overhead expenses, that "they should be in herds of not less than ten."

Just the same as in manufacturing harvesters or producing gasoline, production in the dairy is more expensive per unit in case of a few units than of many.

It is economical, too, to keep only registered animals. You may find a grade or a nondescript that will give a high yield of butter, and you may find a scrubby subject in the register. There will always be occasional reversions to ancestral types, but with a registered herd these recessions will be few, while it is improbable that the accidental prodigy will reproduce her own type. It takes generations of careful breeding within certain lines to establish a desired strain, and when established it takes very little outcrossing to undo all that has been accomplished.

Whether the dairyman chooses the ltlle butter machine called the Jersey, the "milking shorthorn", the red polled or the pail-filling Holstein, it will pay him to stick to type. Then, culling out any defective calves, the remaining surplus animals, if the herd is registered, will bring enough better prices than equally productive grades to make a considerable addition to the right side of the ledger. Oregon and Linn county are frequently scoured by buyers from other states in search of registered dairy stock.

The most successful dairymen produce their own feed. Clover, vetch and alfalfa predominate in their hay barns and corn, sunflowers and other succulent feeds in their silos, and their grain rations are produced at home. Though the Chicago grain gamblers ran wheat up to a good price last winter, but a small percentage of growers were able to take advantage of the situation. There is a good deal of lost motion in taking a crop of wheat to market and with the price of it buying some commercial feed and transporting it to the farm. Moreover, one knows what he is feeding if he raises it himself. There are laws requiring the labeling of prepared feeds with a statement of their contents, but the law is disregarded or the sacks are misbranded in too many cases.

The farmers of the country are docked millions of dollars annually for foul seeds in their wheat crop alone. What becomes of all these screenings? Analysis will find them in "Chump's cow and calf conditioner" or "Bunkum's butter booster" or some other combination guaranteed to do wonders in the dairy.

If you must buy part of the ration, know what it is. If it is in ground form send a sample to O. A. C. and you can learn what percentage of it is swept-up dirt or powdered sorrel seed.

The best-paying dairies are those where brains and industry are combined in every detail of the work. In western Oregon there is a good living and a profit in the best dairying, despite the oleomargarine and all the other discouraging facts.

Cover your radishes with an A-shaped tent of cheesecloth, with earth packed around the edges, and the mother of the radish maggot cannot lay her eggs near enough for her offspring to damage the roots.