

Soils and Woods

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VITAMINES FOR DAIRY COWS.

It is known that milk contains in abundance those mysterious, little understood, vital principals called vitamins, which seem to have so much to do with life itself.

So essential are these vitamins that lower animals, like rats, rabbits, guinea pigs, etc., soon die if a sufficient quantity is not contained in their ration. So vital are these vitamins that it was observed in the great war that soldiers having a ration containing butter recovered from their wounds much sooner than those deprived of butter. Hence it is, that dairy products are becoming more and more universally used in our diet than ever before.

Now it is learned that cows' milk has a greater number of vitamins in summer than in winter, presumably due to the fact that they have greater access to sunlight in summer than in winter, and that they have more green leaves of plants in their rations. From this fact it is to be observed how very essential it is to have a well-lighted stable, one with plenty of windows, to let in the sunlight. Also, how important it is to secure forage crops for winter feeding in such a manner as to preserve the green leaves, as in clover and alfalfa hay and the corn plant for silage and to be fed in the dry state. Some people have seemed to think that the leaves of plants, because they did not weigh very much, were of little importance to the ration; but now we know they contain these vital principles.

Just recently it has been shown that if cows are given cod liver oil in their ration in winter, the number of vitamins in the milk is greatly increased. Cod liver oil contains these vitamins in abundance, the cod getting them from the green leaves of sea weed. Hence the vitamin can be maintained

in milk during the winter by adding the oil to the cow's ration.

But it will be much better and more economical to furnish the vitamins to the cow in her regular food than to feed her cod liver oil. Certainly if the practice should become common, the price of the oil would so advance that it would become prohibitive.

The first thing to do is to have the stable well lighted and well ventilated. This allows the cow to function normally. The next thing is to prepare forage crops that they will retain their leaves.

If clover is cut and allowed to lie in the swath in the hot sun until nearly all the moisture evaporates, the leaf and stem become very brittle and when handled the majority of the leaves drop off. But, if raked soon after it is cut while only in a wilted state and put in cocks immediately and allowed to cure in these cocks, even if it takes several days, the leaves are tougher and adhere to the plant more tenaciously and are saved.

If one has hay caps to cover the cocks with they have ideal conditions. However, if the clover is put in cocks, then when cured it can be drawn down more compactly so it will shed rain more readily and in case of wind will not blow over to be exposed to the weather.

When the clover, or alfalfa, is in proper condition to cut, it should be cut at once, whether you have five acres or forty, and immediately put in cocks. The weak colony is the one that is drawn into the barn with the least loss of leaves. This gives the hay the greatest degree of palatability, the largest percentage of digestible nutrients, and, not of the least importance, an abundance of those essential vitamins.

Then we will not have to feed cod liver oil to get normal milk.

Asparagus in Home Garden

Some Practical Hints on this Popular Garden Perennial

By H. F. GRINSTEAD.

Any soil that is fit to produce other vegetables will answer for asparagus, though a light sandy loam is best. The preparation of soil should be thorough, and a liberal application of stable manure given where it is obtainable. If stable manure is not to be had, commercial fertilizer at the rate of 1,000 pounds to the acre and in the proportion of 150 pounds of nitrate of soda, 500 pounds of acid phosphate, sixteen per cent, and 200 pounds of muriate of potash will give good results. In addition to manure, 300 pounds of common salt should be applied. If commercial fertilizer is used, the salt is not necessary.

Doubtless the best and most economical way to begin with asparagus is to grow your own roots from seed. A little time would be gained by buying year-old roots from a nursery, but the selection would not be so good. In early spring, sow the seeds in drills fifteen to thirty inches apart, depending on whether to be cultivated by hand or with horse. The seed should be planted an inch apart in the row and later thinned so the plants will stand three inches apart.

TRANSPLANT THE SECOND YEAR.

Clean cultivation should be given the seedlings, and the following year they should be transplanted in rows. When setting roots, whether from the nursery or your own growing, lay off a furrow with plow, making the rows three feet apart, and set the roots in the bottom of the furrow and cover with two inches of soil. Gradually work the soil in as the shoots begin to grow till the ground is level. One long row in the garden is to be preferred to a bed, as was once the practice. If more than a row is desired, lay off another three feet from the first, or a little nearer if space is limited. Asparagus should be planted along one side of the garden where it

POULTRY.

Turkeys need very little shelter. A high tree seems best suited to their needs, although during severe weather it is well to have overhead protection. After the poult "shoot red" they are hardy and troubled with only one serious disease—blackhead.

Blackhead may readily be detected by watching the droppings. The first symptoms of the disease are thin droppings of bright yellow color. This is often seen before the bird droops. Then the red part of the head becomes quite pale and the bird refuses to eat. A very feverish condition exists, which makes it easy to doctor.

In a gallon of fresh water put a few crystals of potassium permanganate. I use a measuring spoon—one-fourth teaspoon size—about half full. Take corn out of the diet, for corn is too heating, and feed curds of milk with a pinch of salt, and Kafir or cane-seed for grain.

Turkeys are more suspicious than other fowls of unfamiliar drinking vessels. Therefore, use the same drinking trough, or one just like it, or the

bird may refuse to drink. Call the other turkeys near the pen. Unless the disease is in an advanced stage, the sick one will eat and drink. If the bird will not drink, force a few teaspoonfuls down its throat. If treated when the first symptoms appear, the bird will eat and drink and no trouble from handling will be experienced.—A. H. S.

An Ounce of Prevention and a Pound of Cure.

A certain farmer, who returned home from town one day to find his six-year-old son at the top of the windmill, prevented the repetition of this dangerous feat by cutting the lower section from the ladder and providing it with hooks by which it could be suspended out of reach of the youngsters. The hooks were attached to the upper end of the section so that they would engage one of the ladder-rungs above, and the piece was suspended at a height where it could be easily reached and lowered by a grown man, but in such a position that youthful acrobats would be discouraged in attempts to climb.

Building Up Bee Colonies.

It is essential that every beekeeper should have all his colonies in the best of condition, i.e., strong in bees of the right flying age at the commencement of the main flow in order that the largest possible crop may be harvested.

The first step, then, in building up should be taken toward the end of the honey flow, about the last week in July or first in August, when the beekeeper should see that each colony is headed by a vigorous young queen so that plenty of young bees may be reared for the winter. Should no nectar be coming in, it might be necessary to stimulate brood rearing by feeding; especially is this necessary for nuclei.

Later, he should see that all colonies contain an abundance of wholesome stores, and that the bees have adequate protection from the cold, in order that they may winter with as little loss as possible.

Despite the best of preparations for winter, it will sometimes be found when the colonies are removed from their winter quarters that they are low in vitality and vary greatly in strength.

To conserve their vitality cellar-wintered colonies should be brought out to be protected where possible, and they should be shielded by some sort of windbreak.

Unless lots of stores are present in the spring colonies will build up but slowly. It will, therefore, be necessary early in the season to see that all have sufficient stores of honey. In most localities there is ample pollen. Combs of honey should be placed, after breaking the cappings, one on each side of the brood nest. Should spring flowers fail it might be necessary to feed to prevent brood-rearing being curtailed. In localities where pollen is not abundant, combs containing it should be saved and given in the spring.

The problem of the beekeeper, then, is to bring the medium colonies up to the strength of the strong ones. This may be done by uniting weak colonies to them or by giving a comb of sealed brood with adhering bees.

If desired, a weak colony may be built up by placing it above a strong colony with an excluder between them. No entrance is provided above. This is best done in the evening. First remove the cover and allow the cool air to cause the bees of the strong colony to recede. The weak colony is then gently placed above without the use of smoke. Three weeks later the upper colony, now quite strong, is removed to a new stand.

Water is required early in the spring for brood rearing until new honey is coming in, and unless a natural supply is near the apiary it should be furnished.

That the queen be not crowded for room in which to lay, an extra super should be given when the bees are filling all the spaces between the frames in the brood chamber. The bees also should be made as comfortable as possible by giving them ample space in which to store.

Should increase be desired, the colonies may be divided as soon as the hives are full of bees.

Warm the Tar-Paper Before Putting on Roof.

Some years ago we had occasion to repair a shingled roof with tar-paper and as the weather was somewhat cool, a few rolls of paper were placed near the stove to warm them so that they could be more easily handled. In the haste to finish the work, however, some of the rolls were used without



A Cloak for Brides.

Something entirely new for the bride's wardrobe is a cape of hycinth pink baronet satin with tinted peonies under its draped bolter collar.

This precaution, and to-day the difference in the wearing qualities of the two is plainly visible. The rolls of paper that were applied while warm are in good condition while the others are buckled, checked and cracked in many places.

As an explanation of this, the workman who did the repairing says the warm paper shaped itself to the rough surface beneath before hardening. Also, that the paper applied while cold and stiff naturally cracked more or less in handling; and, since it did not accommodate itself to the surface of the old roof, it was subject to further wear from the wind and weather.—G. E. H.

Poultry Record of Performance.

A correspondent wants to know what he shall do in order to enter the Record of Performance for poultry, established and conducted by the Poultry Division of the Dominion Live Stock Branch, Ottawa. First, he must send to the Division for entry forms and a copy of the rules and regulations. He can do this without placing any stamp on the envelope containing the application. He also wishes to know how many eggs a bird has to lay so as to qualify for a certificate. For an R. of P. certificate she must lay 150 eggs in 52 consecutive weeks and for an advanced certificate 225 eggs in 52 consecutive weeks. The eggs must be up to the grade "specials" in the Canadian standards, and after April 1, must average over two ounces in weight.

Spring paint on old furniture covers a multitude of sins.

COMMON DISEASES OF THE STRAWBERRY AND THEIR CONTROL

Leaf spot, leaf blotch, etc. There are two fungus diseases which produce spotting or blotching on strawberry foliage. One is called leaf spot; the other a leaf blotch. The leaf spot is readily recognized in the field by the small circular areas scattered over the leaves. At first these are purplish but later become greyish or brownish in the centres shading to reddish brown towards the margin. The margin itself remains purplish.

The leaf blotch disease is first observed as small reddish purple spots appearing on the leaves, petioles and fruit pedicels. On the leaves these areas gradually increase in size and finally coalesce to form irregular blotches, sometimes covering the entire leaflets. They remain dark in the centre and hence are easily distinguished from the leaf spot which has a light grey or brown centre. On the petioles and fruit pedicels, sunken lesions are formed which frequently girdle these parts and thus weaken if not kill them.

Control. These two diseases are controlled by the same operations. When setting out a new patch, old leaves showing symptoms of either disease should be removed. If all the foliage is affected it is better to discard the plants. As soon as the first symptoms of either leaf spot or leaf blotch appear in the field spray immediately with Bordeaux mixture, using a 4-4-40 or a 4-6-40 preparation. Keep the plants well covered with spray throughout the season; spraying every two or three weeks if necessary.

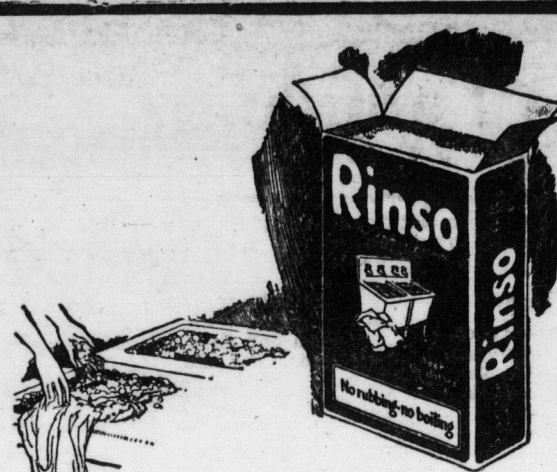
The following season spray thoroughly with the same material before the blossoms open, in order to protect the plants until after picking. Then apply another covering of Bordeaux at

that time so that the young developing leaves may be given every protection. It is essential to keep the leaves comparatively free from disease in order that they may function properly and store up food for the crop of fruit the following season. The second year if either of these diseases is present, spray before the blossoms open and again after the fruit is picked. The plants are usually plowed down after the second crop.

Powdery Mildew. During the early part of the summer another disease is found affecting the strawberry foliage. This is also a fungus disease—powdery mildew. The symptoms are a curling upward of the margin of the leaflet along the mid-rib so that the under surface is exposed to the sun. Following this a white, powdery fungous growth appears on the under surface of the leaves. The growth thus formed produces reproductive bodies throughout the remainder of the season which are carried by the wind to other leaves and plants, thus spreading the disease.

The best means of controlling mildew is to dust with sulphur, using an 80-20 mixture, as soon as the first symptoms of the disease are observed. Repeat the applications every week or ten days if necessary. This dusting will also aid in the control of the strawberry weevil which proves troublesome in some districts.

Root Troubles. There are various diseased conditions of the roots encountered in strawberry culture. Included among these are winter injuries as well as root rots. As yet no satisfactory means of control have been found but a good winter mulch has proven useful to decrease materially the losses from such troubles.



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THE CHILDREN'S HOUR

TO THE GREAT CITY.

Once there was a little gray pony which longed to go to the great city and see all the sights. He had often set out in gay spirits, prancing this way and prancing that way, but he had never gone anywhere near the great city.

One day when he was prancing this way and prancing that way he heard a great sound. For an instant he stopped and listened. The sound came from the swaying branches of an oak tree.

"Where do you want to go, little gray pony?" it asked.

"To the great city to see all the sights," replied the little gray pony and began to prance again.

"Very well," said the great oak tree. "Stop prancing this way and that way and go straight ahead. Then you will surely find the great city and see all the sights."

"Thank you," said the little gray pony. "He didn't do it at all. He kept right on prancing this way and that way, and so of course he didn't reach the great city that day or see any of its fine sights."

A second day the little gray pony heard another great sound as he was prancing this way and that way. He pricked up his ears and stopped again. Was he hearing sounds from the great city? No, it was the great voice of the sea as its waves splashed noisily on the shore.

"Where do you want to go, little gray pony?" it asked.

"To the great city to see all the sights," replied the little gray pony. "Very good," answered the great sea. "But you must stop prancing this way and that way and go straight ahead. Then you will certainly come to the great city and see all the sights."

"Thank you very much," said the little gray pony. "I will do it." But he didn't do it at all. He kept right on prancing this way and that way, and so of course he did not reach the great city that day or see its wonderful sights.

A third day the little gray pony was prancing this way and that way when again he heard a sound, this time, gentle and soft, the voice of a child. The little gray pony stopped prancing to listen.

"Oh, where are you going, you dear little gray pony?"

"I am going to the great city to see all the sights," said the little gray pony, beginning to prance this way and that way again.

"That would be fine," answered the child, "but don't you know you can never reach the great city by prancing this way and that way? Let me get on your back and I will guide you straight ahead, and then we shall surely come to the great city."

So the little gray pony let the child climb upon his back, and together they went straight ahead until at last they reached the great city and saw all the wonderful sights.—Mary L. T. Tufts in Youth's Companion.

Valuable Bull Died from Eating a Nail.

The recent death of a \$50,000 bull from this cause ought to provide food for thought for the man who persists in leaving loose nails scattered around his farm. Nails are mighty useful things, but their usefulness ceases when they are left scattered around the granary or feeding room. Nails may be kept to advantage in a box with compartments. The compartments make it possible to have the nails sorted all the time. The time it takes to install a nail storage is amply repaid when you want nails of a certain size in a hurry.

Children often scatter nails about; if they know they ought to keep the nails in order, they will do so and not only save a great deal of trouble, but also learn habits of orderliness.

The best time to get rid of the scrub bull is to-day.

It is not true, as sometimes is said, that acid phosphate increases soil acidity.

To the lover of nature the wild flowers of the Canadian National parks are a constant source of delight. Strange as it may seem the flora of the higher altitudes is among the most beautiful in the world.

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CANADA'S WOOL CLIPS

It is gratifying to note in the general agricultural situation an increasing interest being evinced in all parts of Canada in the maintenance of herds of sheep, for in addition to there being a profitable market for mutton and lamb, great opportunities are developing in the Dominion for wool production. Though the past few years, owing to the deflation of the prices of wool and the closing of the United States market by the imposition of a tariff of 15 cents a pound, have been depressing and discouraging ones for Canadian sheepmen, authorities are unanimous in the opinion that this period has passed and that there are better times immediately ahead for Canadian wool growers.

The total production of wool in Canada in 1922 from 3,262,626 sheep and lambs was 18,623,892 lbs., as compared with 21,251,456 lbs. in the previous year. Of the 1922 clip the Province of Prince Edward Island contributed 800,544 lbs.; Nova Scotia, 1,875,341 lbs.; New Brunswick, 1,827,782 lbs.; Quebec, 5,664,867 lbs.; Ontario, 5,450,425 lbs.; Manitoba, 630,808 lbs.; Saskatchewan, 1,150,542 lbs.; Alberta, 1,539,500 lbs.; and British Columbia, 288,493 lbs.

Though the 1922 figures exhibit a decline in production, this is due to purely temporary economic conditions, and the Canadian wool clip is to be expected to regain that place on the ascending scale it occupied previously. In 1900 the Dominion wool production was only 10,657,597 lbs. and had declined to 6,933,955 lbs. by 1910. By the year 1915 it had jumped to 12,000,000 lbs., a figure it maintained until 1918, when the surprising total of 20,000,000 lbs. was attained. By the year 1920 a production of 24,000,000 lbs. had been reached, and in the depressing era which followed there has been a gradual falling off.

CANADIAN CO-OPERATIVE WOOL GROWERS' ASSOCIATION.

The increase in production may, in some degree, be attributed to the grading and co-operative marketing which were undertaken in 1918. Ten years ago very little was known about Canadian wool except that it was a product which even the Canadian mills discredited. Prepared wool received no better price than that which reached the market in its unprepared state. After an educational campaign being waged by the various governments for a number of years, the Federal Live Stock Branch undertook the grading of the wool in various parts of Canada, and this was sold by provincial departments or associations. In the spring of 1918 the Canadian Co-operative Wool Growers Ltd. was formed, and the wool-growing industry in Canada put on a new basis.

Practically all the wool produced in Canada is now marketed through the Association, which since its organization in 1918 has handled over 19,500,000 lbs. of Canadian wool. Every pound of this has been effectively graded by the Government graders before being marketed in Canada, England, and the United States. The Association is controlled and operated by wool growers and has its own salesmen and representatives in foreign markets. It has a central warehouse at Weston, Ontario, with a capacity of 4,000,000 lbs., open to receive shipments the year round, and other collecting points open for the shearing season.

The effect of better grading and marketing was beginning to be experienced in the Canadian wool industry when the period of depression arrived, and with the adjustment of conditions evidenced at the present time, one can dwell with optimism on the future of wool production in Canada.

Profit in Using Limestone.

An experiment with ground limestone and fertilizer conducted at the Kentville, N.S., Dominion Experimental Farm, over two periods of three years each, resulted in profit as follows, according to prices current at the time in Nova Scotia. In the first three-year period the value of the yields on the plots limed and fertilized was \$118.55 per acre as against \$98.14 on the plots merely fertilized, a gain of \$20.41. In the second three-year period when manure was added, those plots with lime produced a value of \$360.62 per acre and those unfertilized \$312.05, a gain for the lime of \$48.59 per acre. The cost of the lime was \$16.80 and the profit per acre above the cost \$52.20.



No Man's Chatter. The Kindly Old Party—"And whose little boy are you?" Little Waldo—"Sir, I am a free American citizen and the property of no one."

The world production of beet sugar for the current year is estimated at 20,450,000 tons, which is about 200,000 tons more than were produced the previous year, and 2,000,000 more than the average for two years preceding the World War.