

Horticultural Advice

PLAN TO KILL WOOLLY APHIS

Carbon Disulphid Solution Applied to Roots of Trees Will Control the Pest.

(Prepared by the United States Department of Agriculture.)

Carbon disulphid, in solution at the rate of one-half ounce to four gallons of water and applied at the rate of three-fourths gallon a square foot of soil, will control the root form of the woolly aphis and without injury to the trees under suitable conditions.

The solution is prepared by pouring the carbon disulphid into the water and agitating the mixture vigorously. When applied on the soil around a tree the liquid penetrates into the ground and the poison gas given off by the chemical kills the pest. Every square foot of infested soil should be subjected to the action of the solution in order to insure complete control. This may be accomplished by pouring the liquid in a shallow basin made in the soil around the tree.

In orchard practice, where many trees are to be treated, the solution is best applied by using a power spraying outfit and two auxiliary tanks. The advantages of this method are the even diffusion of the liquid and complete aphid mortality in the soil area treated and the safety with which the disulphid can be used. The disadvantages of the method are: The huge



Power Spraying Outfit.

amounts of water required, with consequent high cost of labor; the difficulty on any but level ground of preparing basins with level floors, thus insuring the proper distribution of the liquid over the area to be treated; and the wide area of infested roots on older trees, every square foot of which must be treated with the liquid. This last condition precludes the use of carbon disulphid except on small trees with restricted root areas.

KILL INSECTS IN ORCHARDS

One Kind Subject to Destruction With Poisons While Other Is Controlled by Spraying.

Broadly speaking, all insects which are a menace to fruit growers secure their feed in one of two ways: By biting and swallowing portions of the food material, or by sucking the juices from the interior portion of the host. All biting insects are subject to destruction with arsenicals or other stomach poisons. Sucking insects are controlled by the use of contact sprays, which corrode the body and penetrate the breathing portions of the pest or otherwise effect their destruction.

DORMANT SPRAY IN SPRING

Much Stronger Solutions Can Be Applied Before Buds Open—Do Work Thoroughly.

The dormant spray is usually applied in the spring before the buds open. Much stronger solutions can be used at this time than would be possible when foliage is on the tree. Advantage is taken of this fact in fighting the San Jose scale. The dormant spray should be applied with sufficient pressure to drive it into all crevices and under loose bark. It must be applied thoroughly.

TIME TO PRUNE APPLE TREES

Best Horticultural Practice Is Generally Admitted to Be During Late Winter.

The best horticultural practice is generally admitted to be to prune apple trees during late winter and early spring, say February 15 to May 1. However, no bad results can be expected from pruning any time during the dormant season when the weather will permit of such work.

BOY SCOUTS

SCOUT PRESIDENT'S MESSAGE

The war is over. Peace is here. Our ninth anniversary finds scouting stronger than ever. There are more scouts, more leaders, more troops.

Again we look forward to a year in the man-making out-of-doors.

The greatest need of a nation is for men—not the mush-and-molly sort, but the self-reliant, red-blooded man; the man who has lived in the open all seasons of the year, who likes the heat of the winter winds and can enjoy the heat of the blazing sun; the man who loves the hikes and camps, the open-air games and self-cooked meals, the stars, the trees, the birds, and in fact every phase of scouting, as it brings him in touch with nature's wondrous revelation of God.

The nation has need of more such men as that typical scout, our great former president, whose recent death the nation mourns and now memorializes, and whose greatness of character and achievement were largely made possible by his active outdoor life.

Let us dedicate ourselves to a year of intensive outdoor scouting, such as that great man lived, so that the life of our nation may be vitalized by more men such as he.

Several outstanding obligations rest upon every scout. His life from day to day should, first of all, be an unbroken chain of good turns and acts that square with the scout chain and law—each act as a link, each link so strong that the chain of the scout's life will hold whatever the strain of trial or burden. Furthermore, each life should be centered in a body made so strong with rigorous contact with the out-of-doors that illness and weakening habits find no place in his life, and he will ultimately develop into a robust, scoutlike, thorough-going American citizen.

LEARNING TO TELL THE TREES.



One of the Most Interesting Nature Studies of the Scouts.

CHURCH COUNCIL FOR SCOUTS.

The federal council of the Churches of Christ in America has voted the following resolution:

"The federal council of the Churches of Christ in America, through its administrative committee, expresses its deep sympathy with the boy scout movement.

"Several of the constituent denominations of the council have appointed commissions on relationship with the boy scout movement and render earnest testimony of its great value to the church.

"The attitude of the Boy Scouts of America in their recognition of religion and their loyalty to the church is cause for deep appreciation upon the part of the churches."

TRYING OUT THE WOLF CUBS.

Dallas, Tex., in experimenting with the Wolf Cub idea, is limiting itself to one group of cubs.

Scout leaders are watching with care to see whether the younger boy, who receives something of the scout training in the Wolf Cub patrol, loses his keen desire for scouting or by his insight into it is impelled to a more genuine appreciation.

DOINGS OF THE BOY SCOUTS.

Reading, Pa., boy scouts removed dead trees from sidewalks for fuel in church.

Roosevelt memorial trees have been offered to Pennsylvania boy scouts by the state department of forestry.

The aldermen of New London, Conn., voted \$250 to the boy scouts for their good work in cleaning up the city. The scouts cannot personally accept money for such services, so it was given to the local council and will be used for the summer camp.

FREE CITY of STRASSBURG



An Old House in Strassburg.

STRASSBURG, from the remotest times, has revealed a love of liberty and independence which, it must be said, frequently bewildered and even disconcerted its would-be oppressor. Through its numerous vicissitudes it has retained a personality which nothing ever succeeded in destroying. Little is known of the city during the Celtic period. When the Romans invaded Gaul, they discovered on the banks of the Ill, and quite near the Rhine, a small village, the strategic importance of which they immediately recognized. Perched on a relatively high hill, Argentoratum, as the Romans named this hamlet, dominated the whole of the fertile plain of Alsace and the river valley. They therefore fortified it and established there the general headquarters of the legions who were especially intrusted with the defense of the passage of the Rhine. For more than three centuries this region remained under Roman domination, after which lapse of time it was conquered by a powerful Germanic tribe, the Alamans.

For several centuries, Strassburg was subjected to the continual vicissitudes of warfare, says the Christian Science Monitor. The Franks succeeded the Alamans and after the battle of Tolbiac in 496, Strassburg and the greater part of Alsace were Christianized by Clovis. Under the Merovingian dynasty, Strassburg was elevated to the dignity of a royal city. The Carolingian monarchs even signed several of their celebrated charters there. However, the city itself vegetated; lack of security hindered its development, and when, in 925, Alsace was incorporated in the German empire, Strassburg was still a relatively unimportant town. It had possessed a bishopric for several centuries, and so long as its development had remained stationary, had submitted unprotestingly to the domination of the clergy. However, as its commerce developed and its industries gradually evolved, Strassburg rebelled, first timidly, then openly and successfully, against the clerical yoke.

Building the Great Cathedral. The real prosperity of Strassburg dates from the thirteenth century, when it already numbered 50,000 inhabitants. The bishops vainly strove to regain their former supremacy by force of arms, but Strassburg defended itself with much energy and at last enjoyed a period of relative peace, during which all classes lived in harmony.

This period coincides with a great development in the fine arts. It was then that Gottfried of Strassburg, the first Alsatian poet of the middle ages, was scribe in his native town, and Erwin of Steinbach, artist and architect, undertook to build the cathedral on the site of the former basilica, erected about 670 A. D. on a spot where once stood a temple dedicated to Hercules.

The original plan of Master Erwin has not been faithfully followed, and it must be admitted that the edifice has lost nothing through this, but has rather gained considerably. He had conceived of a facade two stories in height, dominated by two towers of equal height. It was, however, many years later that the cathedral was completed, and the two towers were welded together at the height of the first story, the left tower alone being finished, its delicate openwork spire—a marvel of sculpture—rising 142 meters above the earth. The threefold portal, giving access to the three Gothic naves, is decorated by a multitude of remarkable sculptures.

The great tower was finished in 1439, under the direction of John Holtz. Many were the artists who lovingly decorated this unique stone jewel. The baptistry was the work of John Deiginger; the pulpit that of Hans Hammerer, and innumerable humble artisans lovingly and piously decorated and embellished it. Their anonymous tribute is touchingly revealed in the slightest details of the gigantic and splendid masterpiece.

The Astronomical Clock. The great clock of the cathedral has been for nearly six centuries an object of public curiosity and amusement. This astronomical clock was first built by Bishop Berthold of Birsing in 1352, and was completed two years later by Bishop John of Lichtenberg. The clock originally occupied the space facing that which it occupies at present in the southern transept. Besides various astronomical devices indicating the true solar time, it has a great planetarium in which the revolution of the planets is represented, so that the relative position of each at any time can be seen at a glance. Then, on an elevated platform, are moving figures representing the four ages of man.

On a still higher platform is a natural-sized figure of Jesus, and at noon the twelve apostles pass before the feet of their master, bowing low. As Peter passes, a large and marvelously lifelike cock flaps his wings, ruffles his feathers and crows three times very loudly and naturally. The clock was definitely completed in 1574, to be destroyed during the revolution of 1793. But in 1842, a Strassburg artist named Schwielgue built the clock which still exists and is a faithful copy of the old timepiece.

Houses of the Renaissance. During the Renaissance, Strassburg enjoyed a prosperity of which some idea can be gained from the numerous monuments which were erected at that period. Many of these still exist, especially those old houses which abound in the little narrow streets in the neighborhood of the cathedral, where many picturesque old signboards bear evidence to the past. The Boecklin house, which once belonged to a noble family of lower Alsace, is among the most celebrated of the period. The courtyard of this house contains a magnificent stone staircase, and it also possesses a particularly fine Renaissance doorway. The House of the Crow, dating from the fourteenth century, is famous for its remarkable courtyard, and it is said that Frederick the Great lodged there in 1740. The House of the Dragon, recently demolished, was in the fourteenth century the residence of the Knights of Endingen, whilst the famous Kamezzell house on the Cathedral place, dating from 1407, is of world-wide renown. Its three stories were built at successive periods; but clothed with its high, slanting roof, so characteristic of Strassburg, it rather resembles an immense dove-cote with its many windows.

During the thirty years' war, Alsace fell under the rule of France; Strassburg became French on the 30th of September, 1681, whilst the annexation was definitely ratified by the Peace of Ryswick in 1697. Vauban personally directed the construction of the citadel in 1682. But his fortifications, strong as they were, could not resist the intensely terrific bombardment to which the Germans subjected the old city in August and September, 1870, and Strassburg was obliged to capitulate after barely a month's resistance. During the shelling of the city, many of its finest public edifices which were for the most part of the eighteenth century, were destroyed. Amongst these figured the magnificent library.

THE KITCHEN CABINET

Kindly words, sympathizing attention, watchfulness against wounding men's sensitiveness—these cost very little but they are priceless in their value.—F. W. Robertson.

TASTY DISHES.

Now that fresh eggs are becoming more plentiful, we may indulge in various egg dishes, which add to the variety of the menu.

Baked Eggs.—To two cups of rice add two tablespoonfuls of butter, one third of a cupful of milk, one-half teaspoonful of salt. Beat vigorously three minutes, add one and one-half cups of mince, force through a strainer, and continue beating until the mixture is well blended. Pile on a buttered baking dish and make six cavities. In each cavity drop a raw egg and bake until the eggs are set.

Allerton Potatoes.—Cut two cups of cold boiled potatoes into cubes. Separate the yolks and whites of four hard-cooked eggs. Chop the whites and force the yolks through a potato ricer or strainer. Add potato cubes and chopped whites to one and one-half cups of white sauce, and turn on a hot serving dish. Sprinkle with yolks and garnish with parsley.

Macaroni With Eggs.—Break into inch lengths one cupful of macaroni. Put to cook in boiling salted water; when full and tender, drain and put a layer into a buttered baking dish, cover with half a cupful of good white sauce, two sliced hard-cooked eggs, a teaspoonful of scraped onion, then repeat, using the rest of the macaroni and two more eggs with another half cupful of white sauce. A half cupful of cheese may be added for flavor, and it will also add to the food value of the dish.

Boiled Fish With Egg Sauce.—Steam a firm whitefish until tender, and serve with a white sauce to which has been added two chopped hard-cooked eggs and a finely minced sour pickle.

Escalloped Egg and Rice.—Put three tablespoonfuls of rice in a frying pan and brown in a tablespoonful of hot fat; when a light yellow, add enough water to cook it until tender, then while hot stir in two or three eggs, seasoning with salt and pepper. When the eggs are cooked serve at once. This dish will serve four or five people, and will taste nearly as well as if it were composed entirely of eggs.

Sometimes we love the vision bright That leads us on through dark the night. But life's ahead what'er befall And come what may, we're comrades all.

FOOD FOR THE FAMILY.

When there are two cupfuls of well-seasoned mashed potato left add two eggs, slightly beaten, two tablespoonfuls of pimento puree and salt and pepper; mix well and set away to chill. Later the croquettes are shaped, dipped in egg and crumbs, and when time to serve are fried in deep fat until delicately browned.

Creamed Fish in Scallop Shells.—Melt three tablespoonfuls of butter, add three tablespoonfuls of flour and when well mixed add one cupful of milk which has been scalded, with one slice of onion, a sprig of parsley and a bit of bay leaf. Bring to the boiling point; add one and three-quarters cupfuls of flaked fish and season with salt and pepper. Fill buttered scallop shells with the mixture, cover with cracker crumbs and bake until brown.

Baked Lobster in Shell.—Remove the meat from a two-pound lobster and cut in cubes. Heat in one and one-half cupfuls of white sauce and add salt, cayenne and two teaspoonfuls of lemon juice. Refill the body and tail shells, cover with buttered crumbs and brown. To prevent the lobster from curling over while baking, insert small wooden skewers of the right length to keep the shell in its original shape.

Onion Puree.—Cook onions until tender; drain, dry and force through a sieve; there should be two cupfuls. Melt two and one-half tablespoonfuls of butter; add two tablespoonfuls of flour and stir until well blended, then pour on one-half cupful of milk. Bring to the boiling point; add the onion puree and season with salt and cayenne.

Creamed Mushrooms on Toast.—Clean and peel one pound of mushrooms; cut in slices. Melt five tablespoonfuls of butter, add the mushrooms, sprinkle with salt and pepper and dredge with one and one-half tablespoonfuls of flour; pour over a half cupful of thin cream and cook five minutes. Serve on oblong pieces of buttered toast and garnish with toast points and parsley.

Mushrooms cooked as above and served in a thin white sauce as a vegetable make a most acceptable dish.

Nellie Maxwell

No Drawback. The best story accredited to Sir As-ton Webb, president of the British Royal Academy, concerns a politician "I wonder what he'll do now," said one. "What's the matter with him?" "He's lost his reason," replied another. "Oh, that won't matter, so long as he retains his voice," was the reply.

LIVE STOCK

DISINFECTION IS NECESSARY

Invisible Organisms or Disease Germs Spread Rapidly and Live for a Long Time.

(Prepared by the United States Department of Agriculture.)

In dealing with infectious diseases of live stock, the average stockman and farmer does not sufficiently realize the importance of thoroughly disinfecting his premises following an outbreak of contagious disease on his farm or in his locality. Unless the germs which cause the disease are destroyed, they have the power to maintain themselves on premises for indefinite periods. So long as they thus remain they are a constant menace and may at any time be the cause of an outbreak.

It is but natural to acknowledge the presence of only such objects as can be seen with the unaided eye. Science, however, by means of the high-power microscope, has clearly proved the existence of numerous minute animal and vegetable organisms—micro-organisms—and it is a matter of common knowledge that many of these organisms frequently find their way into the animal body and produce disease. It is also well known that these micro-organisms, or germs, vary in form and other characteristics and that for each disease of an infectious nature there is a specific germ.

If these germs could be confined to the animal body and die with it there would be no such thing as an infectious disease. Unfortunately, however, they are thrown off by the animal through the excretions and lie in the soil, in the litter of stables, upon the floor and walls, and in cracks and crevices. Here they may remain and maintain their virulence for an indefinite period, ready at any time to be gathered up by an animal in its feed or to be blown about in dust and drawn into the lungs.

For example, we have tuberculosis in cattle and glanders in the horse. In the former disease the causative agent is a rod-shaped germ which averages about one ten-thousandth of an inch in length. Cattle affected with tuberculosis pass myriads of these germs with the manure, and it is not difficult to understand how in the average stable they would have little difficulty in finding many lodging places.

In glanders the causative agent is another rod-shaped germ, about the same length as the tuberculosis germ, but somewhat thicker. A character-



Cattle Affected With Tuberculosis.

tic of this disease is the formation of ulcers in the nostrils and other portions of the body, from which there is more or less discharge laden with the glanders germ. And here, again, it is not difficult to understand how one diseased animal may contaminate extensive premises.

As has been stated, some of these minute forms are vegetable organisms. In fact, these vegetable parasites are the cause of some of the most destructive diseases, and some of them are very difficult to destroy, for the reason that they contain spores. A spore may be likened to the seed of a plant, for it bears about the same relation to the bacillus that a grain of wheat does to the plant proper. As the plant may be destroyed and the seed remain latent for an indefinite time, so destruction of the bacillus may be accomplished while the spores remain unharmed and retain life for weeks, months or years.

An example of this class of organisms is seen in the agent which causes anthrax. Ordinary methods for the destruction of the bacillus will not destroy the spore as well, and thus anthrax becomes a most difficult disease to eradicate. Upon farms where animals have died from anthrax and the carcasses have been buried instead of destroyed, repeated outbreaks of the disease may occur from time to time, possibly extending over a period of several years. This condition is due to the existence of the very resistant spores, which under favorable circumstances are carried to the surface of the earth, and become infecting organisms—much as the seed of a noxious weed, after remaining in the soil during the winter, finds the conditions favorable in the spring and develops into a plant—except that these minute forms of life multiply with the most wonderful rapidity.

Thus it is that our increased knowledge regarding micro-organisms, or bacteria as the cause of many animal diseases has emphasized the importance of disinfection.

Ventilation is very essential in a barn. Animals are much like human beings in that they need fresh air.