

BOTANY

Poisoning Poison Ivy

2,4-D and ammonium sulfamate sprays, easy to apply, rout the burning, blistering pest. Vine can be recognized by its many aerial clinging roots.

By DR. FRANK THONE

► POISON IVY, poison oak and poison sumac, that evil triad that for generations has inflicted misery on millions, have reached the end of their trail. Man, long their victim, now confronts them as a victor. Their eradication, long considered practically impossible, can now be accomplished almost as by waving a wand.

The wand in reality is the nozzle of a sprayer, and its magic is the beneficent magic of chemistry. Whole communities are joyously joining in the attack, routing these ill weeds out of home plantings and parks, off school and playground walls, away from summer camps and hiking trails. There is no longer any excuse for letting these nuisances survive in any place frequented by human beings.

Principal weapons in this war against these poisonous tyrants are 2,4-D and ammonium sulfamate. Both are wartime developments, and became available in quantity to the public only this year. Both are offered under a variety of trade names; but somewhere on the label their content of the essential killing ingredients will be stated.

They are easy to mix and easy to apply. All kinds of sprayers will serve. Depending on the size of the job, they may range from the hand-wielded garden variety to power-driven outfits used for fighting insects in orchards. Some commercial eradicators have introduced fog-machines, which are adaptations of the smoke-machines of wartime fame.

Appearance of Enemy

But before we attack the enemy we must know what he looks like and where he is. Poison ivy and poison oak are for present purposes the same thing: vines or low shrubs with three-parted compound leaves, clusters of inconspicuous greenish flowers in early summer, and soiled-looking white berries in fall and winter. Actually, the plants are all of vine form; what appear to be clustered shrubs are really straight-up branches of a vine-like runner just under the surface of the ground. Where

conditions are right for this runner to turn up and climb a tree or a wall with its myriad clinging aerial roots, the branches stick out sidewise.

Poison sumac looks pretty much like ordinary sumac, except that its fruits are pallid berries like those of poison ivy. It is found only in the wet, acid soil around the margins of bogs. Unless you have occasion to go into such places, there is little likelihood of your running into poison sumac.

Others Found Everywhere

But its evil three-leaved cousins get around practically everywhere. By common consent the species that grows on the Pacific Coast is called poison oak, while the highly variable forms found in the East are lumped together as poison ivy. The "Eastern" poison ivy, however, is not strictly Eastern; its range pushes far to the northwest and in Oregon overlaps that of the coastal poison oak. While no part of the country is entirely free of one or another of these three-leaved pests, poison ivy reaches its greatest abundance along the Atlantic seaboard, thinning out and hugging the ground more in the drier parts of the country.

Now that we have identified and located the enemy, we may proceed with our chemical bombardment. First, a word about our two types of munitions. Each has its advantages, and each its drawbacks. A common advantage is that both are good killers. They can be too good killers if handled carelessly, for they are as deadly to tomatoes or beans or dahlias or rosebuds as they are to poison ivy and other weeds. So you must be careful not to spray where you don't want to kill. While 2,4-D has the peculiar property of harming broad-leaved plants but not grass, ammonium sulfamate is a grass-killer as well.

Ammonium Sulfamate

Biggest advantage of ammonium sulfamate is its quickness; poison ivy is dead within 48 hours after spraying, whereas after 2,4-D treatment the leaves remain green (and poisonous!) for two or three weeks. On the score of cost,

however, 2,4-D has the better of the argument. A gallon of 2,4-D spray solution costs only one or two cents, whereas at present prices a gallon of ammonium sulfamate solution costs about 20 cents.

The form of ammonium sulfamate that was available last year caused some complaint because of its tendency to corrode metals, and hence damage spraying equipment. This has been corrected, in the compound now offered by du Pont under the trade-name "Ammate."

Balancing advantages and drawbacks of both weapons, L. W. Kephart, in charge of weed investigation for the U. S. Department of Agriculture, states, "For treating small areas, where expense is not a factor, I still prefer Ammate."

Of the several compounds of 2,4-D on the market, Mr. Kephart recommends the ester, because it is prepared in oil and is thus sprayed as an emulsion that sticks to the leaves even if rain does come a few hours after spraying. If you can be reasonably sure of fair weather for a while after spraying, however, the sodium and ammonium salts of 2,4-D will be satisfactory.

Spray in Sun

Best time to spray, whatever you are using, is on a warm, sunny day, preferably in the forenoon. That is when life processes in plants are going at top speed, which will result in the more rapid absorption of the poison spray, and its distribution throughout the tissues, even down into the roots. It is best if you can have a day that is windless as well as warm, for that will decrease the risk of the spray being carried onto the leaves of plants you don't want to kill.

If a poison ivy vine has climbed into a tree, you don't need to injure the tree by spraying its leaves while you are after the invader's. Just chop off the vine close to the ground. Presently it will start new shoots; then you can spray them and thus kill the root.

While one spraying will devastate a patch of poison oak or poison ivy, you can't expect a hundred-per-cent kill. There will be a few survivors, as there are after any kind of massacre. Also, there are likely to be seeds in the ground, that will keep on coming up for several years. So you will have to go over the area twice or thrice the first season, and make seasonal check-ups thereafter.

After you have got all your spraying done, be sure that your sprayer is very thoroughly cleaned. Remember, both types of ivy-killer will kill other plants, too, and if you leave a little 2,4-D or Ammate lurking in it when you want to use the sprayer for DDT-ing the insects on your vegetables or flowers—well, it will be just too bad.

When you remove the overalls or old clothes you have been wearing while among the poison vines, drop them, and whatever else you have on, into a tub and soak them well in strong suds. Wash your shoes, your leather gloves. And finally, wash yourself. Go over yourself with strong brown GI laundry soap, or its equivalent, for the first-over. Strong soap kills the poisonous oil with which you have unintentionally besmeared yourself while wading in the weeds. Mild soap won't do it. Remember, you have been dealing in poison, so you are "unclean" until you have thoroughly purged your skin and your clothes of it.

After that, you can revisit the scene of your late combat, prepared to do some highly enjoyable gloating.

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CLINGING VINE—Poison ivy climbing on trees and walls can be surely identified by the innumerable clinging aerial roots. Harmless ivies have similar roots, but their growth is far less abundant.

PSYCHIATRY

Psychiatry for Faithful

Science of helping people solve their problems is a medical specialty and does not undermine religion. Psychiatry's aim is to relieve human suffering.

➤ PSYCHIATRY is not undermining religious faith and morals. This is the considered opinion of America's leading psychiatrists, among them prominent Catholics.

More than a hundred psychiatrists, including psychoanalysts, meeting in Minneapolis as the Group for the Advancement of Psychiatry, are greatly disturbed by the current attacks on psychiatry. The attacks, they believe, reveal ignorance of the real aims and principles of psychiatry.

Four of the most prominent Catholic psychiatrists in the United States took issue specifically with "the recent series of public statements attacking psychiatry attributed to Monsignor Fulton J. Sheen of the Catholic University of America."

These psychiatrists are Drs. Edward A. Strecker of Philadelphia, Leo Bartemeier of Detroit, Frank J. Curran of New York and Francis J. Gerty of Chicago.

"It is a fundamental tenet of the Cath-

olic Church," they stated, "that there can be no conflict between true science and religion. We wish to state our emphatic agreement with this principle."

They point out that psychiatry is a recognized medical specialty occupying the same position as surgery or any other specialty concerned with the relief of human suffering. The Catholic Church has supported and sponsored the teaching of psychiatry at the Catholic University of America, at the Church's five medical schools and in its numerous hospitals. At the present time a number of Catholic priests who are physicians are being trained in psychiatry with the approval of the Catholic Church.

Contrary to the charge that psychiatry undermines morals, Dr. Bartemeier pointed out that psychiatrists recognize that for some patients, their improvement depends on strengthening their consciences.

The psychiatrist does not judge or censure his patients, saying, "you are

good or bad," but helps his patients to see and understand themselves as they really are in relation to their situation in life.

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MEDICINE

Methods Decrease Infant Deaths from Diarrhea

➤ INFANT deaths from acute diarrheas have been reduced from 30% to 50% by methods reported by two Argentine doctors at the First Pan American Congress of Pediatrics in Washington. The doctors are Mario J. del Carril and A. E. Largaia of Buenos Aires.

First step in their treatment is to give plasma to combat shock, and sugar and salt solutions to restore fluid to the dehydrated tissues of the baby. Next they give sulfa drugs or penicillin to fight infection. After these measures, "well chosen feedings," preferably of human milk, are given. Abundant vitamins and whole liver extract are also given.

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Sulfur mining in the United States follows a process patented nearly 60 years ago; essentially it consists of pumping superheated water down a drilled hole to melt the sulfur, then pumping the sulfur-laden water out.