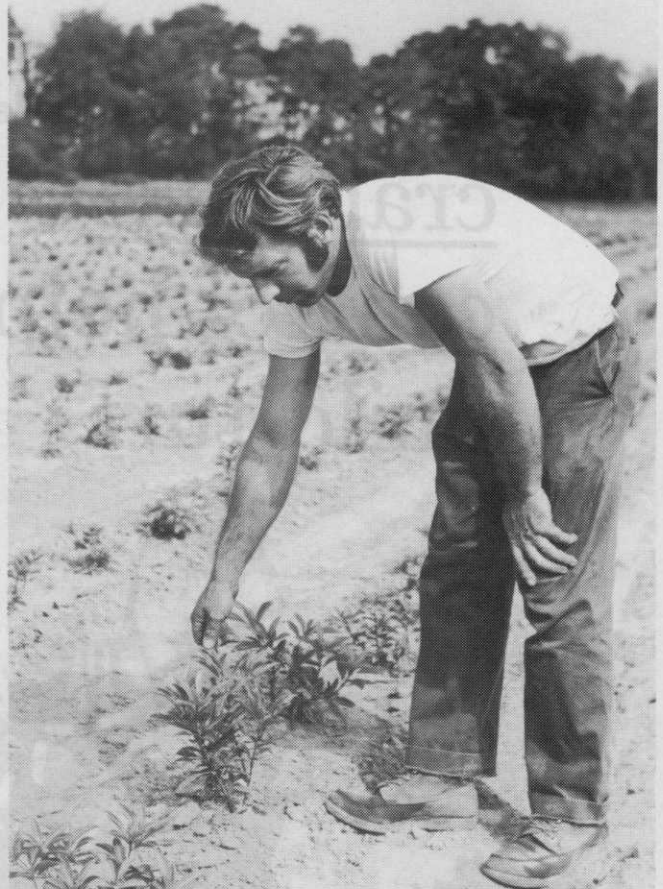


Chemical Weed Control Cuts Labor Costs In Half



Fred Platt, manager of the Robert W. Baker Nursery at Simsbury, Conn., examines a plot in one of the fields that makes up the 300 acres nursery. He used Princep and Enide plus cultivation for weed control.

MANY NURSERIES have reduced their labor costs by 50 percent—or more—with chemical weed control. It's the no-hoe way to go.

That's the story at the Robert W. Baker Nursery, near Simsbury, Connecticut. Fred Platt, who's manager there, states that before making the switch to herbicides he had men hoeing around the junipers, yews, and pines on the nursery's 200 acres.

"Last year we had 30 men doing the hoeing and other field work. This year we have 13. We've cut costs more than half with chemical weed control," Platt says.

Thanks to modern herbicides, he had a field that needed no hoeing this past summer, while another field required only one light hoeing by 10 men in about two hours. Yet, Platt still believes in cultivation for new and established fields.

With labor and other operating costs rising, nurserymen like Fred Platt have turned to herbicides as a less expensive, more convenient

method of weed control—and one that is less injurious to nursery stock than the usual hand mechanical methods.

Platt has been using such chemicals as Eptam, Princep, Treflan and Enide. At the Baker-owned Atlantic Tree Service nearby, Princep and paraquat are used to control weeds between the 10 ft. rows of several varieties of large shade trees.

"We've used Princep for five years, and the only problems we've experienced were the result of our own mistakes—improper calibration of equipment or miscalculation of the weather. It does a great job of keeping broadleaf weeds out, and we don't put it on heavy," Platt explained. He goes light on application to insure against plant injury.

At the Baker Nursery they use about two tons of the granular chemical and 100 pounds of the wettable powder a year. "We're getting great results with the granules. If

you get them on at the right time, they work," he said.

Platt has gone to fall applications because spring land conditions often hinder field work. An application of a combination of two herbicides last November led to the no-hoe condition on one field of established nursery stock.

"If I continue to get such results this next year, we won't apply in the spring except for new fields," Platt said. The granules need moisture to break them down, so Platt sometimes applies over snow and gets good weed control, where a summer application without rain "is useless."

Dr. John Ahrens, of the Connecticut Agricultural Experiment Station, Windsor, sees a greater shift to fall applications with little spring use of the herbicides.

"Several herbicides or herbicide combinations can be safely applied in the fall to control weeds in nur-

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series until June or later," says Ahrens. "In the Northeast, fall or winter applications do not usually affect the growing of an oat cover crop the following September, an added advantage where winter erosion is a problem."

The researcher reports of an experimental simazine-trifluralin (Princep-Treflan) combination applied in the fall with "terrific results." He feels that combinations give the best utility, because one chemical will kill weeds not affected by the other. The granular forms "remain a very effective herbicide for fall use," while simazine wettable powder in spring controls weeds such as established chickweed.

"Nurserymen like granular herbicides because many are not equipped for spraying weed control chemicals. But no two nurseries are exactly alike in size and in what they grow, so both forms—granular and wettable powder—can be adapted to their needs and available equipment," Ahrens says.

For instance, the D. Hill Nursery at Dundee, Ill., uses a Hahn Hi-Boy sprayer and another 50-gallon sprayer for chemical weed control on its 750 acres.

Bill Kreutzfeld, vice-president in charge of production, says their weed control program is designed to give both lower production costs and better plant development.

Visitors to the Midwest Nursery and Landscape Expo held at the Hill Nursery in late July, 1971, were told, that the 'ideal' procedure calls for early land preparation. Quick Start liners or others are planted in alternate 44-inch beds, with plants on 11-inch centers. Princep is applied and followed immediately by 1½ inches of irrigation.

The irrigation activates the chemical in the top 1½ inches of soil. Kreutzfeld explained, "The application is done after the first cultivation in the spring, which is immediately after planting."

He believes his rate of four pounds an acre may be more than is needed, but bindweed is still a problem weed for them. Hill Nursery has used the herbicide since 1956 and rates it as a "genuine benefit." But they also recognize the necessity of using it carefully.

Frank Kogut, Jr., manager of the 300-acre Kogut Nursery in Meriden, Conn., puts in many busy days supervising fieldwork and other activities.

His main concern is spring weeds
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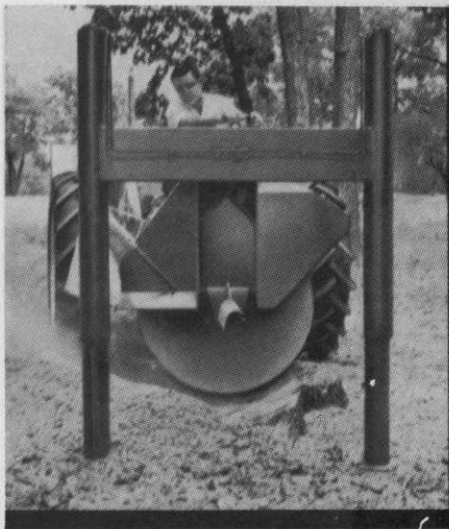
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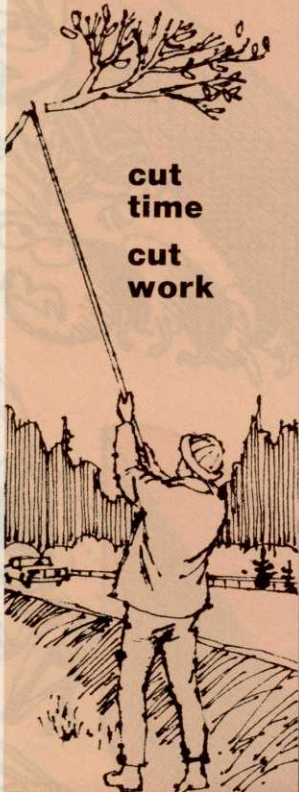
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WEED CONTROL (from page 26)

and grasses. "We've been experimenting with Princep for three years, and now we're going to use it more," he said. "It did a terrific job on a lot of annual bluegrass we had; we got good control, and since we keep cultivating all the time, once the early weeds are out, the rest is easy."

Kogut applies the granules at 40-50 pounds an acre ("We're going light with it") around junipers, yews, hemlock, and arborvitae. He won't use it on andromeda and broad-leaves, and applies the chemical to a section of ground only every other

concluded that combinations of herbicides applied in the fall at lower rates provide greater safety for low tolerance stock, and help reduce residual problems, Kogut's main concern.

Ahrens reports some nurseries have used the chemical for 10 years without any signs of injury to tolerant stock. His studies indicate that residue levels do not build up over a period of time.

In a 1965 report, he stated, "Newly planted yews and the relatively susceptible *Eunonymus sarcoxi* have been planted in soil treated five years previously, and treated again after planting the sixth year, with-



William Kreutzfeld, vice-president in charge of production at the D. Hill Nursery in Dundee, Ill., looks over the results of an application of herbicide to control weeds. Note that little unwanted vegetation exists.

year. In this way he feels he avoids residues in case he wants to change plant types there.

He doesn't mind if the light application lets some weeds through as long as he can keep the hoeing to 40-50 acres in the spring.

He still feels he's ahead at a cost of \$20-25 an acre, including labor. Says Kogut, "chemical weed control saves plenty on hoeing. We get better plant growth and have fewer insects."

August and winter (February and March) applications are normal procedure for the Kogut Nursery. The granules are broadcast with a hand-crank spreader three rows at a time. Frank believes walking it on helps in gauging the wind better and adjusting the fall of the granules.

Having worked in this field since 1958, researcher John Ahrens has

out serious injury at three pounds of simazine per acre per year."

After 10 years of treatment on the same soil, yews grew as well or better than a comparable untreated soil in his experiments, but the growth of *Eunonymus* was markedly depressed. Therefore, he suggests decreasing herbicide dosages as weeds are controlled and alternating and combining herbicides at lower rates to avoid injury to sensitive plants and the building of resistant weeds.

He advocates accurate applications of herbicides, and correct rates of chemical for the results nurseries want.

And those results, for Frank Kogut, at least, are when "a man can walk through 10 acres in an hour, and only hoe what few weeds come up here and there."