

THESE MUMS MUST DIE

Killing chrysanthemums is the best way to stamp out devastating disease

By KATHY KREIGER
Sentinel staff writer

MUM'S THE WORD. But only for three more days. Starting Sunday, gardens from Bay Street in Santa Cruz to the Monterey County line should be bare of chrysanthemums for the next eight months.

"If you like chrysanthemums — get rid of yours!" is the catchy slogan agricultural officials have dreamed up to encourage gardeners to dig up and toss out these perennially popular fall flowers.

The target of this October to May bare-earth policy is a tiny imported fungus that threatens the state's \$5 million chrysanthemum industry: Chrysanthemum white rust.

By nipping the disease in the bud here, ag officials hope to spare the rest of the state — and the rest of the nation — from a costly pest that is widespread in other chrysanthemum-growing nations.

Starting next month, ID-carrying state inspectors will go door-to-door in the quarantine area to hunt out and destroy any remaining chrysanthemums.

By next summer, they hope, the threat to U.S. chrysanthemums will be entirely eradicated.

"If everyone gets rid of their mums, it sure should," said state agricultural biologist Casey Estep, who has answered some 300 phone calls made to the state's white rust hotline. "The rust survives a very short time once it's away from the host."

Still, if you love your mums, there is a way to keep them without breaking the quarantine.

Spray to save

Maybe your chrysanthemums came west along the Oregon Trail with your great-grandmother. Maybe they're special varieties you've carefully nurtured year after year.

Maybe you've just grown fond of the darn things that brighten your fall garden, year after year, with so little trouble.

If you're willing to spend \$100, agricultural officials will come to your garden and spray the plants with fungicide every 10-14 days during the eight-month quarantine period.

The true cost of the treatment will be closer to \$560, said Allen Clark of the state Department of Food and Agriculture, which is

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overseeing the quarantine. But in the interest of public good will — and to avoid creating outlaw mum growers — Clark said the department will absorb the rest of the cost.

You'll have to agree to have your plants cut back to make sure all the leaves get a good dose of fungicide and you'll have to allow ag inspectors access to your plants.

The county's four commercial chrysanthemum growers will be allowed to spray their plants themselves. The fungicide used is not available to the general public, however, so gardeners who want to save their mums must allow state inspectors to do the spraying.

So far, few people have been interested once they learn the cost, Clark said.

If you are interested you can call Clark at (916) 653-1440, or the local agricultural commissioner's office at 454-2383, or leave a message on the white rust hot line, 454-3300.

Otherwise, dig up your plants and bag them for disposal with your regular trash pickup.

Spotting the villain

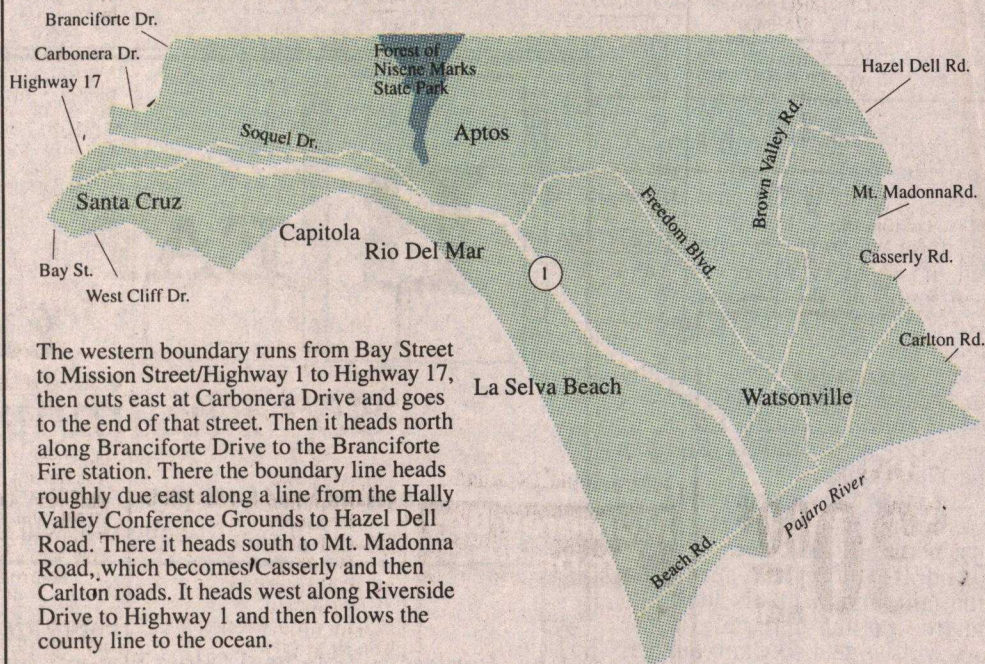
The first signs of white rust are yellowish blotches on the upper leaf surface. With time, the leaves turn black and rot. On the underside of the leaf, prominent pustules start out pinkish buff and then turn the waxy white that gives the disease its name.

Severely infected leaves dry up and hang along the stem.

The fungus lives on only two species of chrysanthemum: *Chrysanthemum morifolium*, which includes both the familiar florists' chrysanthemum and the garden chrysanthemum; and *Chrysanthemum pacificum*, or gold-and-silver chrysanthemum, a rare specialty plant.

Please see MUMS — D2

Chrysanthemum quarantine



The western boundary runs from Bay Street to Mission Street/Highway 1 to Highway 17, then cuts east at Carbonera Drive and goes to the end of that street. Then it heads north along Branciforte Drive to the Branciforte Fire station. There the boundary line heads roughly due east along a line from the Hally Valley Conference Grounds to Hazel Dell Road. There it heads south to Mt. Madonna Road, which becomes Casserly and then Carlton roads. It heads west along Riverside Drive to Highway 1 and then follows the county line to the ocean.

Bill Lovejoy/Sentinel

Gardeners in the quarantine area have two choices: dig up and toss their mums or pay \$100 to have them sprayed with fungicide.

Chris Carothers/Sentinel

Mums

Continued from Page D1

The fungus can only live away from the chrysanthemum for a very short time — less than an hour. It does not persist in the soil like other diseases do, and it goes dormant in cold temperatures. For the most part, it's carried by infected plants or flowers.

Oddly enough, the plant's close relatives — another 150 or more chrysanthemum species — aren't affected by the fungus.

Chrysanthemum family members that are perfectly safe to grow include Shasta daisies, marguerites or Paris daisies, painted daisy or pyrethrum, paludosum daisies and the herbs feverfew and costmary.

Why all the fuss?

The fungus is not native to this country, but is common in Europe and Japan, Estep said.

Ag scientists aren't sure how it got here, but speculate it came in an uninspected shipment of chrysanthemum cuttings or flowers from abroad.

The threat to the state's chrysanthemum business goes beyond lost plants and dollars, however, said Clark of the state department of Food and Agriculture. It lies in the possibility of trade sanctions from other states or countries if the disease is not contained.

The state started its eradication

effort in 1990, Clark said, when the disease was found in three counties: Santa Barbara, Santa Clara and Santa Cruz. So far, they've wiped it out entirely in Santa Barbara County and in all but one Santa Clara County nursery. But between March 1993 and September 1994, ag officials found some 130 cases of white rust in Santa Cruz County.

They'd like the public's cooperation in wiping it out completely. But they have the backing of an emergency regulation declaring the plant a public nuisance that must be removed.

"How far they would push it, I don't know," said Mary Lou Nicoletti of the local Agricultural Commissioner's office. "I suspect if someone's back gate is locked, they're not going to climb the fence. They'll do the best they can with the folks who are at home."

More positively, ag officials point to the future rewards of a sacrifice now: plentiful supplies of healthy plants, lower costs to growers and consumers resulting from less pesticide use, and the "satisfaction of preventing this new plant disease from becoming established."

Quarantine boundaries

The quarantine area follows the coast from Santa Cruz's Bay Street east and south to the Monterey County line. Surprisingly, it does

not include Santa Cruz's foggy Westside, which would seem as perfect a climate for rust as La Selva Beach or Aptos.

But for whatever reason, Clark said, no cases of white rust have been found on the Westside — so there's no reason to quarantine the area.

The quarantine area includes most of the city of Santa Cruz, Live Oak, Capitola, Soquel, Aptos, La Selva Beach, Corralitos, Freedom and Watsonville.

Not sure whether you're in the quarantine area? Call the white rust hotline listed below.

And if you're not sure what chrysanthemum plants look like, call the hotline and state inspectors will be glad to visit your garden to take a look.

For more information call the chrysanthemum white rust hotline at 454-3300.