Sonoma County Water Agency got this kind of weed control along multiple-use irrigation ditches with Princep. The picture at right shows the difference where a test application ended.

How California Water Agency Is Tackling

Irrigation Ditch Weed Control

SONOMA COUNTY Water Agency, north of San Francisco, is a prime example of a non-agricultural industry now recognizing the need for a safe, economical and effective weed control program.

Before adopting their new herbicide plan, Chief Engineer Gordon Miller and Superintendent of Maintenance Al Williams conducted exhaustive comparative weed control experiments.

"Weeds mean nothing but problems," says Maintenance Foreman Dave Hillendahl. "If weeds along a channel bank are heavy, they will conceal erosion problems until they become major.

"If local farmers are using the channels for irrigation, as is the case in Sonoma County, weed-free banks are an important requirement. Seeds from weeds can get into the water and be carried into the fields. Suddenly the farmer has
a problem he never had before. "Excessive weeds anywhere can harbor rodents and insects. By eliminating the weeds, you cut down the places where pests can survive and multiply."

Esthetically, most weed species are a detriment. "During the winter, when they are green, it's not too bad, but in summer when everything turns brown, weeds are a definite eyesore and a fire hazard."

When it comes to controlling weeds, Hillendahl is a firm believer in herbicides for ease of application, cost, labor efficiency and selectivity in weed and grass control. "We have some areas that would be impossible to maintain if we had to disc or mow for weed control. With a chemical program, per acre cost is decreased considerably, and the use of the labor forces is more efficient."

In selecting a herbicide, Hillendahl says, "We choose a material that will fit a variety of needs, including landscaping, cover crops, and channel maintenance." Last year the agency treated most of its system with Princep (simazine).

"With some materials, we have observed photo-decomposition and resulting less than desired weed control. This is not the case with Princep. Therefore, we can apply Princep as we do as early as August with good results.

"This was learned during the early years of the program through practical application and experimentation with many products.

"Other difficulties encountered at this time included excessive leaking of some materials and hazard to adjacent desirable plantings through lateral movement.

"A large number of our channels are near or actually border subdivisions, orchards, vineyards, landscaped areas, etc. Princep had none of these problems."

"Princep gives us year-long weed control. It controls all of our annual weed and grass problems plus many perennials," Hillendahl says.

"With Princep we are using a material we know will do the job—we know just what it will and will not do. Our crews all know the capability of the product and how to use it so they won't contaminate irrigation, drinking water, lakes and streams. This is a must for any public agency. With this understanding, the crew can answer any pertinent questions from adjacent property owners or other concerned citizens who should inquire about the material or program."

Another factor Hillendahl must consider is that the entire network takes several months to cover completely. "In order to get the chemical on by the time the rains begin in November, we must begin application in August. Princep will remain on the soil surface until the rainfall moves it into the soil. Often that is as long as three months."

Princep also was chosen because it can be used as a selective herbicide around certain ornamental plantings. Instead of using a boom for spraying, Hillendahl designed his own equipment. He affixed two OC flood nozzles to the back corners of his 1,000-gallon tank truck.

"We get better coverage with this set-up," says Hillendahl, "and our nozzles don't plug up as they did with a boom. This operation is just better all the way around." Rates were 10 pounds per acre in all areas except landscape areas where reduced rates are used per label recommendations.

This water agency is supported by the county tax structure plus some state and federal monies for certain projects.