

Pesky plants, pesky plumes

By MARYLEE SHRIDER, Bakersfield Californian staff writer

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Tumbling tumbleweeds may conjure up romantic images of the wild, wind-blown West, but to farmers and canal managers, they're the cockroaches of the plant world.

They're incredibly hardy, prolific propagators and very hard to kill.

Burning, farmers say, is the only way to get rid of them.

"It's something we deal with every year," said Richard Jelmini, a third-generation Kern farmer. "If the burning is done right, when the tumbleweeds are dry and piled up tight, they go up fast and it's done."

But burning may not be an option much longer in the San Joaquin Valley, where urban residents, environmentalists and lawmakers often take a dim view of snowy white plumes emanating from ag fires. A sweeping package of clean air bills by state Sen. Dean Florez, D-Shafter, if passed, would require farmers to, among other things, end open burning.

Including tumbleweeds. Not that the responsibility for finding alternate methods will lay solely with the farmer, Florez said.

"Obviously if we're going to ask people to clean air and not burn we're not going to ask the industry to take all of the burden," he said. "We have to find cleaner ways other than open-field burns. Tumbleweeds would be the toughest problem. We'll focus on that and hopefully find a reasonable alternative soon."

That could be a problem in the winter months when driving winds blow tumbleweeds onto farm lands and into canals. Eric Averett, manager of the Cross Valley Canal, said canals make perfect catch basins for the weeds, which clog siphons and damage pumps. "Our current policy is that we remove them from the canal, put 'em in large piles and pray for a burn day," Averett said. "We don't want to wait for the next wind, when they would end up back in the canal."

Averett said the Kern County Water Agency, which manages the canal, is sensitive to the pollution issue and investigating alternative ways to dispose of the weeds. Thus far, he said, all options have proven too costly or inefficient.

"We've gotten as creative as to check with hay bale contractors, to bale up the weeds and take them away," Averett said. "But the cost was prohibitive and it would spread seeds everywhere."

The agency, Averett said, spends several thousand dollars each year on tumbleweed control, factoring the expense into their annual maintenance costs.

Tumbleweeds first appeared on the western landscape in the late 1800s, brought here by Russian immigrants.

The thistlelike plant can produce up to 200,000 seeds. When mature, it detaches from the stalk, rolling along with the wind and spreading seeds as it travels.

Longtime Kern farmer Ruben Bartell said growers can, and do, disc under young plants and apply herbicides in an effort to eradicate the problem, but cannot control tumbleweeds that roll into their fields during winter wind storms.

Once the weeds have matured, he said, burning is the only way to keep them under control. But even that longtime practice is growing increasingly difficult.

"You have to get a permit from the local Fire Department and wait for a burn day, which can take awhile," Bartell said. "I went through 32 days already this year when I couldn't burn a dang tumbleweed."

Jelmini said growers should burn weeds when they're very dry. Trying to burn wet or damp weeds, he said, only causes more pollution.

"People get weeds stacked up in their yards and want to burn them right away," Jelmini said. "If they're damp, they just smolder and make more smoke. People see that and blame the farmers for polluting."

Cows' pollution rate reanalyzed

By Mark Grossi

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Turns out cows may not be passing cars as air polluters in the San Joaquin Valley.

State projections last year showed livestock waste -- mainly from dairy cows -- would overtake cars by 2005 in producing the largest amount of a key smog-making emission called reactive organic gas. But with no recent research, officials had been forced to rely on a 1938 study to make the estimate.

A new study suggests officials might need to reduce those livestock estimates by perhaps two-thirds, a reason for optimism among farmers in this smoggy Valley where more than 1 million dairy cows live.

In the Valley, which is widely considered the second-worst polluted area in the nation, the study is crucial. The science will influence possible future rules, which could be costly for the \$4 billion dairy industry if pollution estimates are not lowered.

A reduced estimate would make sense, said Michael Marsh, chief executive officer of Western United Dairymen.

"This is in line with what we had thought all along," he said.

Nobody is drawing conclusions yet about the research, which was performed at a Kings County dairy over three days in October. California State University, Fresno, did the work for the state Air Resources Board.

State officials say they probably will issue a report before the end of the year, but they can't release information to the public at the moment. The old estimates continue until the state makes changes.

Even so, the preliminary results of the study are common knowledge among dairy representatives and air quality regulators. Most agree privately that the old state estimates are likely dead.

Fresno State researchers will begin further work in April and continue studying the waste emissions through summer and fall in an attempt to figure out what the estimates should be.

Environmentalists, who have been pushing to regulate previously uncontrolled dairy air emissions, say they will wait until they see the results and the methods used.

"It would be good for the Valley if this has been done correctly," said lawyer Brent Newell of the Center for Race, Poverty and the Environment, which has filed several air-related lawsuits against dairies. "I want to see the methodology used."

Dairy representative J.P. Cativiela says the industry also is cautious about the good news.

"This [research] is one dairy tested over a few days," said Cativiela of the Community Alliance for Responsible Environmental Stewardship. "We need further study. At the same time, I hate to see this get stretched out too long. We need to get it resolved."

Until the past several years, few people suspected livestock waste was a significant source of smog-making gases. Officials estimated amounts of reactive organic gases by using an antiquated formula adapted from a 65-year-old study of methane, which is not a smog-making gas.

Using the old formula, the state last year projected livestock waste in the Valley would produce 72 tons of reactive organic gas daily in 2005, making it the largest source of these gases in the area. Cars would produce less than half that amount.

Such gases combine with oxides of nitrogen, created mostly by vehicles, and become ozone, the prime ingredient of smog. Ozone is a corrosive, warm-weather gas that triggers asthma and other lung problems.

The old formula showed each cow producing more than 12 pounds of smog-making gases per year. Such gases as ethyl alcohol, ethyl amine and trimethyl amine are included as smog makers that come from decomposing waste.

The field study in Kings County suggests that number is too high, but nobody is certain what the number should be.

"I think we're looking at 4 pounds or less now," Cativiela said.

Officials had predicted dairy cows would overtake cars as the worst air polluters by 2005, an estimate based on a 1938 study.