Bare Shoulders: Herbicide Along the Highway

GELLERMAN: It's Living on Earth, I'm Bruce Gellerman. Along the sides of our nation's highways are strips of space …some covered in grass, trees and flowers; others stripped bare. And, as Living on Earth's Ingrid Lobet reports, it's these areas that cause concern for some who travel the roads.

[HIGHWAY SOUND]

LOBET: Lisa Arkin pilots her Subaru wagon along a highway outside Eugene, Oregon. She gazes at the road shoulder and shakes her head.

ARKIN: We just passed over the Willamette River and you can see acres and acres of dead vegetation, dead from herbicide spray.

LOBET: Arkin is executive director of Beyond Toxics, a non-profit that's been trying to persuade the state of Oregon to find other ways of maintaining the highways.

ARKIN: When they spray, people with immune deficiencies, someone going through a cancer treatment, someone with allergies or asthma...you might have children in the car, you might be a pregnant woman, and you have no idea that you have driven through miles of a recent spray.

LOBET: Arkin's disagreement is with the state, not with this county. Unlike the state, Lane County has a no-spray policy. And the contrast between state roads and county roads is plain to see.

ARKIN: And now, we are merging onto a highway that's managed by the Lane County public works department and we start to see–flowers! And vegetation that is still green.

LOBET: Opposition to herbicides is not uncommon here in Lane County, home to Eugene, a university town. It's a part of Oregon where organic agriculture is strong. Last spring, when the Oregon Transportation Commission heard testimony about roadside herbicide policy, farmer John Sundquist spoke up.

SUNDQUIST: I have testified before you several times in the past urging you to protect citizens and the environment by stopping the poisoning of state-maintained roads in Lane County. And I asked you to enjoy the green, beautiful, poison-free, salmon and wildlife-enhancing roadsides of Lane County.

Oregon Highway 36, maintained by the state, is routinely sprayed with herbicide. (Photo: Lisa Arkin)

LOBET: The State of Oregon and its Department of Transportation is much like other state DOTs. It sprays herbicides, such as glyphosate, that disrupt plant metabolism. That can be once or several times a year. Will Lackey coordinates the teams that work in that space to the right of the white line in Oregon, and he describes how it should look.

LACKEY: We really would not like to have any vegetation growing six to eight feet from the pavement. That is primarily for drainage, for a safe recovery zone for cars so they have a safe place to pull off, visibility, fire hazards–and it's also–if we can keep it bare, that is our first line of defense against noxious weeds.

LOBET: Two of the main questions that preoccupy highway workers when they contemplate any stretch of shoulder are: is it free of plants, in general? And, specifically, are there any noxious or invasive plants like rush skeletonweed or puncture vine?

LACKEY: We target a lot of just noxious weed control. So, we have people out on four-wheelers or even just backpack spraying, just going after individual plants.

LOBET: Washington State, Oregon's neighbor to the north, also uses herbicide but has dramatically reduced the amount in recent years. Ray Willard manages roadside maintenance in Washington State. He's a landscape architect by training. He says when his department first scrutinized its use of herbicide, it found some was unnecessary.

WILLARD: I think what was happening at that time is a lot of the decisions that were being made, were being made by the crews out in the field, and so there really wasn't as much oversight in terms of: 'Is this really the right thing to do? Is it necessary or is there a more effective way to do it?'

LOBET: As Willard's department reevaluated, it found there wasn't much research to help predict what would happen if they sharply reduced herbicide use. Would they need much more staffing? Would it cost much more? They set clearer guidelines and instituted annual training for highway workers, and Washington cut its herbicide use by 66 percent, from 126 thousand pounds of active ingredient in 2003 to 42 thousand. Last year, they actually used more than the year before. Willard says that's because they've gone back to spraying some stretches.

A different section of the same Oregon Highway 36 where herbicide is not permitted. (Photo: Lisa Arkin)

WILLARD: What we found was that it is actually, in a lot of cases, cheapest to treat that band of earth with herbicides. And so, as a result, some of the areas that we had let go and grow back to grass now, we are maintaining them as vegetation-free again now with herbicides.

LOBET: He points out some plants when they're cut come back stronger each year.

WILLARD: If we can make very precise, specific applications we can do that very safely in terms of worker exposure and environmental exposure and we are much more efficient and effective in terms of our budget and use of the taxpayers' money.

LOBET: But those who oppose this method of keeping the roadside clean and bare say taxpayer money also goes to uncalculated health costs. The public health effects of herbicides is an area of research that's still developing. People are unlikely to be severely poisoned. But the jury is still out on more subtle effects to developing fetuses or people with genetic predisposition to greater sensitivity. The concern over herbicides was enough to persuade Oregon's former Transportation Commission Chair Gail Achterman to send a message last year that the status quo is not acceptable.

ACHTERMAN: I am very worried about this issue. I don't think it's good for our employees nor do I think it is good for society to be using herbicides when other alternatives are available. We are going to start running into real liability exposure on the continued use of these toxics.

LOBET: That message was heard. Oregon Vegetation Management Chief Will Lackey says change is happening.

LACKEY: Over the next five years we are going to reduce our pounds of active ingredient by 25 percent. So our bare shoulders, our brush treating and some of our landscape – we are going to reduce our pounds of active ingredient by 25 percent.

LOBET: There have been similar public rebellions against highway herbicide over the last 30 years in other parts of the West, Northeast and in Minnesota, and the trend is toward reduction

in those regions. The issue is, so far, not an issue in much of the Midwest and the South.

LOBET: For Living On Earth, I'm Ingrid Lobet.

Related links:

- Washington State Vegetation Management Program
- Beyond Toxics
- National Roadside Vegetation Management Association

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[MUSIC: Billy Cobham "Spanish Moss: A Sound Portrait" from Crosswinds (Atlantic Records 1974).]

Hybrids: The Cars Of The Future That Nobody's Buying

GELLERMAN: Motor-heads and gearbox gurus got to kick the tires and look under the hoods of hundreds of cars in Detroit at the North American International Auto Show.
And this year, after a dismal spell when U.S. car companies nearly skidded into oblivion, automakers have something to cheer about: sales are up.

At this year's show, new hybrids of all sizes and styles took center stage which is interesting because since they first hit the road about a decade ago, only about two million hybrids have been sold in the United States, just two and a half percent of total car sales. And John O'Dell, senior editor of Green Cars and Fuel Efficiency at Edmunds.com says half of the hybrids sold here are Toyota Priuses.

O'DELL: Prius has become synonymous in this country with hybrid. A lot of people look at that and go, 'wow.' It is low, the market penetration, but it's only been the last three to four years that there's been, that anybody other than Toyota and Honda have come to the market with hybrids.

But the big roadblock is they cost more money than the non-hybrid versions. There's not a lot of savings when fuel is relatively inexpensive and when you can buy conventional engine vehicles that give you 35, 40 miles per gallon. You know, if you're having to pay four to six thousand more for some of these hybrids- you could pump a lot of gasoline at $3.80 a gallon, or $3.50 a gallon- for 4,000 dollars.

GELLERMAN: I'm wondering, John, that since these auto companies are producing so many hybrid models, do they know something that the average consumer doesn't because the sales figures have been so dismal?

O'DELL: I think what they know is that public policy is continuing to require better and better overall or average fleet improvements in fuel economy. And the most reasonable way economically that the auto makers see that they can do this is to continue improving the internal combustion engine and then, even if they don't sell in huge volume, you provide the hybrid models that have a bigger jump than is required. And when you start averaging, they go a long way towards helping, you know, pull up the averages from the bulk of your fleet, which will continue to be internal combustion engines of some sort or another.

GELLERMAN: But the public doesn't seem to be receptive to these cars.

O'DELL: Well, it's hard to be receptive to something. We're in a society that has used the automobile for about 100 years. We traded up from horses and we found very quickly that the automobile gave us a lot of additional utility, a lot of additional functionality, and the price differential was worth it. Now we're asking people to trade a vehicle that works, a power plant that works and a fuel that works for new stuff that comes with a lot of baggage. There aren't very many fueling station for any alternative fuel, the vehicles tend to cost more, and, at best, they don't do anything more for you, utility-wise, than a gasoline vehicle or a diesel vehicle, and at worst they do less for you.