

# Hanford Battles Radioactive Tumbleweeds

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HANFORD, WA - More than 10 thousand workers are cleaning up contamination at the Hanford Nuclear Reservation. One team has a unique mission—collecting radioactive plants. Tri-cities correspondent Rachael McDonald reports.

Calvin Nelson has been walking the fence-line at Hanford for years. He looks it; his face is weathered as he moves along with a Geiger counter in his hand.

Nelson: “that’s a real low background...”

This is tumbleweed territory and the wind piles the weeds up like beach-balls along the Hanford fences. Nelson tests every one.

Nelson: “Sometimes it does feel kind of futile you know the wind blows and the next week the fence is full. You’ve got to go back. This particular job is a job that has to be done and somebody’s got to do it.”

Nelson and his team test about 10 thousand tumbleweeds every year. About 20 of them turn out to be radioactive. On this day, they don’t find any.

Nelson: “A lot of times what we’re doing is we’re just proving the negative. We check the stem of the tumbleweed and then we move on to the next one and it’s just a go, no go.”

[Truck sound]

A garbage truck lumbers behind Nelson. With pitchforks, workers toss non-radioactive tumbleweeds in the back. They’ll be burned. If they find one that’s hot, a special truck will come out and take it away for burial in Hanford’s low level radioactive waste site.

[Truck sound fades]

The program to round up radioactive tumbleweeds began in part because of a man who works just outside Hanford’s fence line. Norm Buske is an independent scientist who calls himself a “radioactivist”. He looks his part too, dressed in a tie-died T-shirt, with his own Geiger counter. Buske holds up a specimen jar of weeds that he gathered more than a decade ago.

Buske: “It’s called sorrel or curly dock. And I’ll put that next to the Geiger counter.”

[Beep, beep]

Buske: “And, that actually is really a hazard with strontium 90 and actually the state of Washington asked if they could confiscate that.”

What’s happening is a result of underground radioactivity at Hanford. Millions of gallons of liquid waste have leaked, contaminating the groundwater. Tumbleweeds can pick up this radiation before they break off from their taproot and actually start to roll. It’s a problem with a variety of shrubs here, including mulberries. Buske helped call attention to this problem in a characteristically creative way. He picked some of the berries.

Buske: “I then made mulberry jam which was not particularly radioactive, so it wasn’t really threatening, but it made a certain point. I sent a bottle to the Secretary of Energy along with a heads up that it was coming and to the governor. But we wanted to make a point that they actually had to look at their problem.”

Energy Department workers have cut down Hanford’s mulberry bushes. And they spray herbicides to prevent deep rooting plants from growing. Botanists say the risk of radioactive plants transporting contamination off the Hanford site is quite minor. Janelle Downs is with the Pacific Northwest National Lab in Richland.

Downs: “The risk of exposure to the contaminants that are stored at the Hanford site the risk to the population is very, very low in comparison to many of the other risks that we take on a daily basis. But it’s an unseen risk so it’s a perceived risk that we think of as being very frightening.”

Hanford officials hope their herbicide spraying will reduce the number of tumbleweeds they have to check for radioactivity at the fence line. Environmentalists are pleased the Energy Department is making an effort to control the problem. But they say that the long term solution is to clean up the contaminated groundwater and ensure the radiation doesn’t poison the nearby Columbia River which might affect plants and people downstream.