

The War on Weeds

Battle brewing across the country on controlling invasive weeds with pesticides

At the National Weed Symposium sponsored by the Bureau of Land Management in April, Interior Secretary Bruce Babbitt called for a national strategy to control noxious weeds, invasive and non-native weeds that are defined as highly destructive to agriculture, rangeland and natural habitat. The Secretary points to a list of 350 noxious weeds in all areas of the country. According to the Secretary, farmers and ranchers lose up to \$7 billion a year because of the problem. He compares the problem in some states, such as Oregon and North Dakota, to economic devastation that rivals the impact of the Dust Bowl of the 1930's. The truth is, land managers have been addressing the issue for quite some time. Management practices have caused controversy for years as attempts have been made to solve the problem in the same way - with herbicides. And now, with this national priority, Vice President Gore has also weighed in. It is feared that the development of a national strategy will only lead to a massive herbicide spraying in the West and across the country, despite the availability of alternative biological methods.

Scientists say the use of herbicides does not provide solutions to the underlying causes. If anything, the use of herbicides in the attempt to eradicate noxious weeds, making them stronger and more tenacious.

A Proponent of Herbicide Use

Cindy Owsley, Boulder County Parks and Open Space Weed Management Coordinator
(Excerpt from *Why I Sprayed Herbicides on Earth Day, Images, BCPOS, 1998*)

"Because most private and public land managers utilize herbicides within their noxious weed management program it is helpful for everyone to understand the issues that surround this use." Owsley states that, "[A]ll pesticides which are registered by the EPA are evaluated for their effects on animals in many different toxicology studies" and, "The herbicides applied to noxious weeds are extremely low in toxicity to humans and animals." Owsley proceeds to remark that, "A prerequisite for any pesticide is that it must be able to degrade under microbial activity and/or sunlight within an expected time frame. When applicators use the products according to the labeled instructions, there is little possibility of the herbicide reaching non-target plants or water resources." She also states, "[W]e must realize that it takes a unified effort that integrates all appropriate tools, including the use of mowing, pulling, biological control, grazing and yes, herbicides."



Weed managers have typically over-utilized the chemical strategy for weed control, dismissing the hazards known about herbicides and the lack of full information on herbicide inert ingredients, ecological effects and impact on human health and wildlife habitat. As Professor Seastedt states, "The solution, of course, is to fix the ecosystem, not just focus on killing weeds. Unfortunately, that's not what weed managers are paid to do, and their bosses are not trained to see the bigger picture. Chemical or nonchemical means of weed removal only fight symptoms. The solutions involve an important management decision: 1) we invest the time, energy and resources to restore native species or 2) we opt to create a more desirable non-indigenous plant community that is capable of keeping the weeds under control."

An Ecologist's Viewpoint on Non-chemical Control

Tim Seastedt, Professor of Biology at the University of Colorado, Boulder

Professor Seastedt states, "Noxious weeds are just the tip of the iceberg of current changes in natural areas. The 'noxious weeds problem' is simply an economically visible component of much larger shifts in plant species in abundance due to human impacts. The extent to which new species are invading natural areas is the result of a) climate change, b) changes in atmospheric chemical composition, including but not limited to enhanced carbon dioxide concentrations and increased inorganic nitrogen deposition, c) drastic changes in the natural disturbance cycles (e.g. fire return intervals, grazing intensities and frequencies, flooding, etc.), and d) the presence and abundance of seeds of non-indigenous species capable of exploiting these changes." He continues, "Chemical control of invasive species in natural areas is seldom a viable option due to the presence of native species that are also sensitive to the chemicals. Effective nonchemical control procedures remain underutilized.

Enhanced use of biocontrols remains promising and appears sufficient for controls of weeds in some cases, however, under current management regimes, biocontrols alone may be insufficient."

Why Alternatives To Herbicides Should Be Used, On Earth Day and Everyday

A Response to a Weed Manager

Jay Feldman

It is often the case that those who use pesticides use them with the belief that they are safe because they are registered by the U.S. Environmental Protection Agency and the state in which these toxic chemicals are used. However, when public officials who coordinate weed management programs profess this safety myth about pesticides they strike a blow to public trust and understanding of the real risks, known and unknown, of chemicals that happen to be in wide use and result in widespread human and environmental exposure.

The Boulder County, Colorado Weed Manager committed this violation of public trust when she wrote in the summer issue of the Boulder County Parks and Open Space publication *Images*, "Why I Sprayed Herbicides on Earth Day. . ." (see excerpts on page 29 of this issue) and seriously misled the public on critical questions of public and environmental safety. Here Cindy Owsley, in defense of pesticide use, is misinformed, and, as a result misinforms.

Adverse Effects of Pesticides

In fact, investigation after investigation, which should be known to a public official of Ms. Owsley stature, say quite the opposite. Of the 18 most commonly used herbicides (herbicides are weed killers, a large and growing part of the family of pesticides), seven are cancer causing, six cause birth defects, six cause reproductive effects, eight are neurotoxic, nine damaging to the kidney and liver, and 14 are irritants, according to EPA and National Institutes for Health data. And that's just health effects. When considering environmental effects, such as ability to contaminate groundwater and toxicity to fish, bees and birds, the majority are culprits.

Comprehensive Testing is Deficient

Even worse, we do not know what we should about the pesticides. The U.S. General Accounting Office (GAO) found in its 1990 report, *Lawn Care Pesticides: Risks Remain Uncertain While Prohibited Safety Claims Continue*, that the public is misled on questions of pesticide safety. While eight years have passed since this finding, not much has changed. The major-

ity of weed killers today have not been fully tested in accordance with modern safety standards. Moreover, the EPA has stated clearly that numerous tests are not even been performed as part of the pesticide registration that should be —tests for endocrine disrupting effects (impacts of these chemicals on fetal development, sexual traits and cancer later in life) and impacts on children generally. In addition, pesticides are not currently tested in mixtures with other chemicals for their additive, cumulative or synergistic effects.

Toxic inert ingredients Are Not Disclosed

The majority of pesticide formulations are comprised of so-called "inert" ingredients that are often more toxic than the parent compound and not disclosed on the product label. They have been protected as trade secret information.

Neither Ms. Owsley nor the public generally can fully identify what solvents, mixing agents, or adjuvants are contained in the products used.

False Safety Claims Abound

In its report, GAO said, "The lawn care pesticides industry [which uses the chemicals we are talking about here] is making claims that its products are safe or nontoxic. GAO's review found nine instances of safety claims, such as "completely safe for humans," made by manufacturers, distributors, and professional applicators. EPA, using its standards for pesticide labels, considers that these claims, when made by manufacturers and distributors, are false and misleading." New York State last year reached a settlement with Monsanto requiring the company to cease its misleading advertising campaign. In that case, New York Attorney General Dennis Vacco called Monsanto's ad campaign "particularly troubling," and forced the company to remove certain "health and environmental claims, similar to Ms. Owsley. Monsanto claimed that Roundup™, which contains the active ingredient glyphosate, is "safer than table salt," that it "can be used where kids and pets play, and breaks down into natural material," despite the warning label which clearly states environmental hazards. Sound familiar?

Having an Informed Community Debate is Critical

Let 's get the truth out and have an informed community debate about the health of families, children and the environment, rather than belittle the meaning, importance and legacy of Earth Day. Maybe then, as a community and as pest managers, we would decide to adopt the nonchemical option that has worked successfully time and time again.

