Treeways

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Pesticide is Just a Nice Name for Poison

Herbicides kill weeds, insecticides kill insects, fungicides kill molds and fungi, and rodenticides kill little fury mammals like mice. Pesticide is just another word for poison. In Minnesota all commercial pesticide applicators applying pesticides must have a Minnesota Department of Agriculture pesticide certification for the types of pesticide they are applying. The pesticide must be applied according to the specifications on the label with no exceptions.

Overuse of pesticides is common. Some of the worst abuses of chemical poisons happen when untrained homeowners apply commonly available pesticides. If the label says use one teaspoon of the pesticide then 2 teaspoons will do a better job, right? No, doubling the rate could lead to damage to non-target plants or animals and could lead to toxic reactions in pets or worse.

Colony Collapse Disorder of bees may be a canary in the coalmine indicator for what humans have done with our natural world.

Crop monocultures are virtual food deserts for most species while being enticing banquets for pests that prefer those crops. Those same monocultures then require the use of toxic pesticides to hold back crop pests (insects and diseases) long enough for us to capture the packages of nutrients and calories that these crops produce for us. We push our natural systems to the limits of productivity in the service of mankind. Our modern food crops extract maximum energy from the sun and capture it in convenient sized packages (grain, fruits, vegetables) for us to use. Irrigation, fertilization, pesticides, superior genetics and modern cropping systems allow us to extract and store maximum calories but not necessarily maximum nutrition.

Pesticides are not bad and they are not good either. They are tools and like all tools they can be put to positive and negative use. They can save lives and cause irreparable harm. Beneficial use and toxic consequences can both be directly related to the use of a single pesticide. How do we know what we should do?

I think that having a clear goal in mind is a good place to start. Let's take controlling an infestation of the invasive species burdock. It is a biennial and that means that it only lives for two years. Repeated broadcast sprays with herbicides over a period of years would gradually eliminate this plant from the area treated with herbicide. A significant amount of herbicide (pesticide) will need to be applied and this could lead to elimination of potentially desirable wildflower type plants too.

An alternative method would start with preventing the second year growth burdock plants from flowering to prevent any new seed from being produced. You can over a period of years eliminate burdock by preventing seed production. The process can be sped up by spot spraying the rosette (first year growth) with the same herbicide that is used on dandelions and this will kill the small first year plants and encourage more of the dormant burdock seeds to germinate so these too can be eliminated. After about 2-3 years spot spraying the relatively few burdock plants that show up will be all that is needed to manage the now minor infestation of burdock. Many other desirable plants can be conserved while the burdock is eliminated and much less pesticide is needed to achieve the same result. This is intelligent use of herbicide as a tool.

Modern urban and agricultural land does not typically have the habitat diversity to support healthy populations of bees, butterflies, and other pollinators that we need. This could be changed with relatively minor changes to allow native wildflowers and flowering trees and shrubs to grow along the margins of lawns and fields. In yards these flowering natives can be incorporated into traditional plantings.

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