
How Toxic Is the Herbicide 2,4-D

[Abstracted from HortIdeas February 1996]. This is the most widely used herbicide in the world and the third most widely used in the USA. The US Environmental Protection Agency has required that it be re-registered to assure its safety. Several years ago I [MLP] spent a summer in laboratory research on 2,4-D. People were not yet so conscious of delayed injury from chemicals, so I often had it on my hands. When I heard that the EPA was taking a new look, I recalled that time with concern.

After completion of nearly all of the more than 200 studies required for re-registration, members of the pesticide industry task force presented results in a symposium. "None of the studies suggest that the chemical poses any significant risk when used properly." Various experts reported the following: when ingested orally [eaten] it is less toxic than caffeine and about as toxic as aspirin; it has low reproductive toxicity; it does not cause birth defects or genetic damage; it has low potential for damaging the central nervous system; there is little risk of exposure from eating crops treated with the herbicide; it rapidly degrades into non-toxic materials in the soil; it is improbable that it is carcinogenic.

For those not familiar with 2,4-D, it mimics a plant growth hormone, causing uncontrolled growth and curling, leading to death after several days. Grasses are not affected because they contain an enzyme that destroys the herbicide, but most broad-leafed plants are killed.