

TIMELY INFORMATION

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HERBICIDE INJURY ON VEGETABLES FROM UNLIKELY SOURCES

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Recently a tomato sample was sent into our Plant Diagnostic Lab that looked pretty bad. The stems were twisted and the leaves were greatly reduced in size. Lab tests to determine if the sample was infected by one of the viral diseases that could cause these type symptoms came back negative. I looked at the sample and determined the injury most probably was caused by a herbicide with the common name of "picloram". Picloram is an older but still very useful restricted use herbicide that is sold under different trade names including Tordon and Grazon P+D. Tordon has been the gold standard for many years for kudzu control in non-cropland areas. Anything that will control kudzu is very powerful because the kudzu tubers can grow to the size of a human leg and we all know how fast the vines grow. Picloram is also a component in Grazon P+D, the other component being 2,4-D. Grazon P+D is registered for broadleaf weed control in perennial pastures and hay fields and is a very effective and useful herbicide. However, picloram is a residual herbicide, meaning it doesn't break down immediately and can be ingested by cattle and horses and excreted out in their manure and urine. Manure is often used as organic fertilizer by home-owners around their tomatoes and other broadleaf vegetable crops. Tomatoes are very sensitive to minute quantities of picloram. If you are using cattle or horse manure to fertilize your homegrown tomatoes, check to see where the manure came from. Commercial sellers of animal manure for fertilizer should be aware of this potential problem. Of course commercial non-organic fertilizers like 8-8-8 or 13-13-13 will not have this potential problem.

Some vegetable growers use plastic covered beds to grow tomatoes, melons, and other broadleaf crops. Often the beds are used for several months with two or more crops. Weeds emerging between the beds and in the holes used for transplanting into the beds need to be controlled before planting the second crop. Glyphosate (sold as Roundup, etc.) is often sprayed over-the-top of the beds to kill these emerged weeds. Glyphosate used in this manner can dry down on the plastic. If this is not washed off the plastic before new transplants are put back, a subsequent rain following transplanting can re-solubilize the glyphosate which can be taken up by the leaves or stems of transplants and cause significant injury. Beds sprayed with glyphosate or other herbicides need to be washed off with a hose or sprinkler irrigation before putting new transplants in old beds to eliminate this source of potential injury.