

Will Aerially-applied Fire Retardant Hurt my Plants?



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Retardants are mostly fertilizer (di-ammonium phosphate, usually); thus, they are at least theoretically capable of "burning" sensitive plants (like a foliar fertilizer would, if applied inappropriately). While the USFS people with whom I spoke had not heard of instances of plant damage, they did suggest that any wayward retardant should be washed off the leaves/plants, especially if aesthetic value of those plants is important. Certainly, any plants that are to be consumed should be washed.

There are other ingredients in retardants as well, mostly color and corrosion inhibitors. None of those are likely to be acutely toxic, but nevertheless any retardant that gets on people/pets/plants etc. should be washed off (remember, firefighters do get drenched with this stuff from time to time - it is not dangerous, but I am told it can be unpleasant if it gets in the eyes. Wash it off).

Retardant that falls onto soil will, relatively quickly, degrade to nitrogen; there really should not be anything left.

About a decade ago there was a big controversy about fire retardant: one of the corrosion inhibitors (used to prevent corrosion in fire engines and tanker planes) that was being added to retardants at the time - sodium ferrocyanide - turned out to be highly toxic to fish and amphibians under some conditions. It is, as far as I know, no longer used, but the resulting controversy over retardant use lives on on the interwebs... Note that the currently used retardant is still somewhat toxic to fish if applied directly over water (ammonia is toxic to fish, no matter where it comes from). So, retardant should be kept out of creeks, but is now considerably less fish-unfriendly than before.

Finally: I recommend the websites below. They also cover what to do about firefighting foams (which are usually applied from the ground) and water enhancers - these are usually gel-like or oily substances that are supposed to make the water a bit "stickier" and are intended typically for structure protection. I was told that they are not used much, and I have no first-hand knowledge about them.

For a helpful set of concise documents, please see the Wildland Fire Chemical Systems page (<http://www.fs.fed.us/rm/fire/wfcs/index.htm>) and specifically their "Environmental Briefs" (<http://www.fs.fed.us/rm/fire/wfcs/envbrief.htm>) most of which are, thankfully, brief pdf documents.

The three most useful are here:

- [Toxicity and Environmental Concerns—General Information](#)
- [Clean Up and Remove Wildland Fire Chemicals from Home and Yard](#)
- [Effect of Wildland Fire Chemicals on Structures and Equipment](#)



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