

## Surround<sup>®</sup> Crop Protectant

by Thomas D. Landis

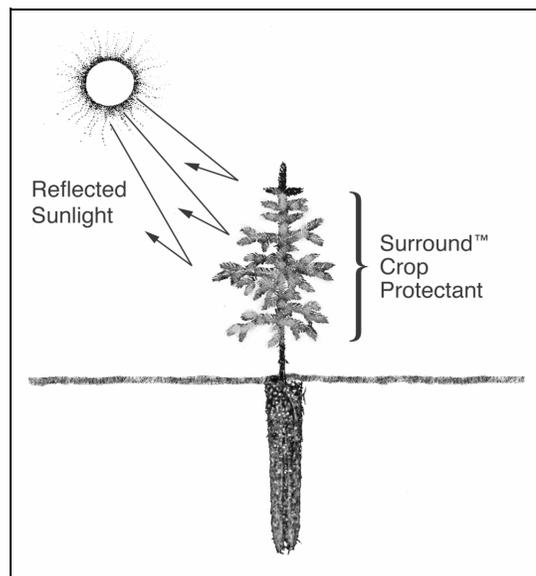
I'm always on the lookout for new pest control products that show promise for native plant crops, especially ones that are bio-friendly. So, when I heard about Surround<sup>®</sup> Crop Protectant at the recent Westside Greenhouse Growers' meeting, it sounded very promising.

Surround<sup>®</sup> is sprayed onto plants and forms a thin white "particle film" coating (Figure 1). According to their website, this coating acts as a protective barrier and repellent to insects while reflecting heat, keeping the plant cooler. The active ingredient is a specially modified kaolin, a naturally occurring clay that is also used as a food additive, in toothpaste, and in cosmetics. So, obviously, it's very safe to use. Surround<sup>®</sup> can be applied with standard commercial sprayers, hand-held sprayers and backpack sprayers and, because it is inert, it does not interfere with most other products when tank-mixed.

Surround<sup>®</sup> is still relatively new and I couldn't find any published research to support the manufacturer's claims. However, several Northwest growers have found it effective in preventing the sunscald that occurs when container seedlings are moved outside from the greenhouse or when plug seedlings are transplanted to bare-root beds. Of course, the coating only protects the current foliage and any new growth will be vulnerable. It should also have application for preventing outplanting shock, but again, that's just my conjecture. The Nursery Technology Cooperative at Oregon State University has established trials with Surround<sup>®</sup> at 2 Pacific Northwest nurseries. Initial observations indicate that it does indeed protect transplants from excessive light and heat, and it will be very interesting to see the final results.

I'm curious about the possibility of protecting crops from insect damage. The coating doesn't appear thick enough to physically prevent damage from piercing/sucking insects such as Lygus bug (*Lygus* spp.). I'm no entomologist but it could be that the whitish coating masks the normal light reflection of the host plant and therefore confuses the insects. If any of you have experience with Surround<sup>®</sup>, I'd appreciate hearing about it.

For more information, check out their website (<http://www.engelhard.com/>) or contact your local farm chemical supplier.



*Figure 1 - When sprayed on plant foliage, Surround<sup>®</sup> forms a whitish coating that protects against sunscald and is also reported to retard insect attack.*