

USE OF AG-SORBENT ROOT TREATMENT

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Federal Paper Board Company is currently using Ag-Sorbent root dip in its packaging of bare root seedlings. This material is a polyacrylonitrile copolymer on a starch granule or gelatinized starch. We have used this material since the 1982 season after comparison tests in 1981 with the clay dip we had been using. Survival figures were not significantly different between the clay and Ag-Sorbent dipped seedlings. The decision was made to use Ag-Sorbent based on its ease of application, cleanliness and low cost. Since Ag-Sorbent is manufactured in the same town which our nursery is located, we can pick up the material as needed. This relieves a storage and handling problem that *we* had with the clay.

In Federal's regeneration program, strong emphasis is placed on using fresh seedlings. Most of our production goes directly from the packing shed to the field. The relatively small size of our nursery has allowed us to lift for planting needs using minimal storage. For those whose production dictates storing large numbers of seedlings, further evaluation of this material should be done.

We mix 3.6 pounds of Ag-Sorbent flakes with 6.9 oz. of potassium metabisulfite per 100 gallons of water. The potassium metabisulfite is to retard deterioration of the solution. The solution is mixed in a bulk tank and transferred to a dipping vat. Seedlings are hand graded, weighed, dipped in the Ag-Sorbent solution, placed on a drain grate and then bundled in open end bales. After dipping and draining, the seedling roots retain a jell-like coating of the solution. Federal has enjoyed good transplanting success while using this material. I think its main benefit to us has been by providing some extra protection from drying once the bundles have been opened and the seedlings are in the planters hands. Again, I would caution anyone planning to use this material on seedlings that are to be stored to evaluate it for this application.