

Discussion

Q. McNeel: What species were you spraying with Paraquat and what rates were you using?

A, Bland: I refer you to John Hamner, Union Camp Corporation, Bellville, Georgia.

- Q. Schowalter: Have you tried a chemical pulp in mulching seedbeds?
- A. Lerfald: No, we haven't used it **in** mulching seedbeds.
- Q. Fisher: Has this machine been tried in wet or heavy clay soils?
- A. King: Yes, sir. We tried it.
- Q. Benson: Was International Paper Company's Turffiber a chemical or mechanical fiber?
- A. Lerfald: Mechanical.
- Comment - Benson: If it had been chemical, I was going to state that Clifford and Masselo did a study, it appeared in Tree Planters' Notes about **1963-1964**. Of all the products they used, International's Turffiber gave the best results, without any reduction in germination.
- Q. Benson: Sid, you mentioned a study concerning the im-planting of seed on plastic or paper tape, is this in the form of a study now with tree seed? Can we expect to see the results of this study and if so, approximately when?
- A. Hanks: The Station at Corvallis, Oregon, is pursuing this in conjunction with the State of Oregon. I hope they put the results in print. I picked it up from the State of Oregon's Forestation Notes. I understand the method is used quite widely in California with radish seed, etc.
- Q. Benson: Any cost figures in relation to that?
- A. Hanks: No - no cost figures indicated.
- Q. Mickelson: Has any work been done on winter mulching of hardwoods with your particular material?
- A. Lerfald: No, not on hardwoods. We are investigating the mulching of vegetables right now. No data yet.
- Q. Mickelson: Is it feasible?
- A. Lerfald: I suspect that it might be.

Comment - Bailey: We mulched our hardwoods last year. I have some slides for the slide session. Don't use sawdust before using the material. If you have high winds, it will only roll up in balls or drifts.

Q. Sweetland: Has anyone tried a sticker with hydro-mulch?

A. Lerfald: I don't know of anyone who has used any type of latex mulch.

Comment - Bland: We have just bought an asphalt pump and we are now in the process of getting it rigged to work in conjunction with the hydro-mulch. We've had varying results depending on how soon we got heavy thundershower-type rain on the seed. One nursery didn't get any rain until everything had germinated and actually we got more seedlings per square foot with the hydro-mulch there than we did with the regular pine straw. At another nursery we got heavy showers and it tended to wash the hydro-mulch off the beds. I feel that hydro-mulch definitely has advantages in more ways than one, but to be absolutely sure, we've got to have something (latex or asphalt) to keep it from beating off the beds.

Comment - Hanks: It all depends on what your objective in mulching is and what you are doing--whether it's mulching in winter, in spring, or during the germination period. Another material that is being used quite widely in the Northeast is the Soil Gard, which is much like the asphalt mulch. It does a pretty good job under certain conditions and on certain types of soils.

Q. McNeel: Where can I get a felt-type material to use as a seedbed mulch?

A. Lerfald: I have some brochures on a material like that. We sell it as an erosion control blanket. It's a cellulose fiber with a latex-type binder to hold the fiber together and has a thin plastic net backing. This is something that could be spread over the seedbeds as a mulch.

Comment - Hill: I would like to hear some comments on the necessity of more irrigation and more frequent irrigation on using wood pulp versus pine straw. It has been our observation for the last two years that, perhaps, it requires not more water

but more frequent watering during the germination period.

Comment - Hanks: On the fiber mulch materials you use less water for germination.

Comment - Fisher: At the Kentucky Dam Nursery we have hydro-mulch right next to cereal straw. We used the same amount of water on both and got about the same amount of germination. However, we've noticed a hollowing. After a heavy rain or after a lot of irrigation, the mulch will hollow around the trees and after the seed have germinated, it seems to hold the tree back a little. About a month after germination, the hydro-mulch trees were about 1/4-inch less in height growth than the straw-mulched trees; everything else looked about equal.

Comment - Benson: Georgia and North Carolina have both experimented with various application rates on this. St. Regis Paper Company has also done some work along these lines. Do they have any recommendations (1,000, 1,500, 2,000 pounds per acre)?

A. Brooks: I'm not too familiar with this. Mr. Neal is not here to speak and he has all the information on our mulching.

Q. Does the darker color have any effect on heat absorption?

A. Arnold: Yes, it does have some effect.

Comment - Lerfald: The St. Regis Paper Company found that 1,500 pounds per acre gave best results. They used four different rates: 1,000, 1,250, 1,500 and 2,000 pounds per acre.

Comment - Nickelson: Regarding the question concerning the roll out material, we tried it on some fall seeding, with pretty sad results. I don't know whether it was the way we put it on or not. We used it over oak and the material didn't seem to break-down fast enough to allow emergence through. We ended up with all our seedlings crooked-neck under the material. Whether this was due to not getting the material down properly, I don't know; but I can say that we were not overwhelmed with the results from it.