PACKING MATERIAL FOR SEEDLINGS - ARE THERE SUITABLE ALTERNATIVES TO MOSS?

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When I was first asked by Jim McConnell to cover the topic of alternative packing materials for seedlings, I was at a considerable loss as to how best to go about it. To be honest with you, at that particular time, I wasn't even sure what I was going to use for packing material myself, let alone trying to give out advice to yourselves as to what you may or may not do.

Of course, my dilemma stems from the fact that our old standby, moss, is getting harder and harder to get and more and more expensive to use. According to the returned questionaires you sent me, approximately two-thirds of us in this room today are either partly or wholly dependant upon moss, as a seedling packing medium. I am sure that at least some of you have experienced the same dilemma that I have – namely, what in the world am I going to use next year?

As an example, let me relate to you my experience of the last year. For the past 18 years, we have used nothing but sphagnum moss for moisture retention at two of our three nurseries in Kentucky. It served our purpose well. It was fairly easy to use, and by using the proper precautions we never had a case of sporotrichosis. In short, outside of a little experimenting with Kaolin Clay, we had no reason to change to an alternative material. Last year after placing, what I considered a routine order for Wisconsin sphagnum moss I experienced my first real "crisis" in my new position of Nursery Supervisor. Out of the ten known suppliers of sphagnum moss, eight had suddenly gone out of business. The other two either would not or could not fill my order. Shipping season was fast approaching and I had approximately enough moss to last through half of it.

What does a person do in a situation like this? Well, I did what I suspect most people would do in a similar situation. I immediately started looking for alternatives. I don't know how long Tree Planter's Notes has been in publication but I know I must have looked through at least fifteen years of back issues. We weren't set up to use clay dip or Kraft-poly bags, which is what most of the articles dealt with. We had to have something, at least for the time being, that would fit in with out present set up. That meant it had to be some kind of material that would fit in with our standard jelly roll forest service bale. Sawdust was one alternative, peat moss was another. One article suggested excelsior. How many of you know of an excelsior manufacturer in existence today? I couldn't find one either.

Anyway, we did find what I consider a suitable alternative to sphagnum moss for our operations. One that is as cheap or cheaper than moss, yet has most of the moisture retention capacity, is not in the least bit messy and is entirely safe to use with no threat of sporotrichosis. And above all it should be plentiful!!

Before I get into that I would like to take time out to express my sincere thanks to all of you for the great response to my letter and questionnaire. If anything, the response was too great. It took me some ten hours just to read through all of the materials and returned questionnaires. I just hope this report does justice to your generosity.

Just for curiosity's sake lets take a brief look at what is currently being used as moisture retention materials in our Southeastern Area. Of the twelve states that replied here are the results. "Eight states are using moss, two are using Clay dip (Virginia and Arkansas), South Carolina is using conwed hydro mulch and Florida is using a substance called "Kim-Pac". Of the three industrial nurseries responding, Container Corporation is using hydro mulch, Buckeye is using sawdust and Weyerhaeuser is using kaolin clay.

As might be expected clay dip came off best as far as costs are concerned. Cost estimates ranged from a low of .02/thousand to a high of 0.710' thousand. You can't find much fault with costs such as those.

Next came conwed hydro mulch and Florida's Kim-Pac, which ranged from a low of.04c/thousand to a high of.19c/thousand. And last of all came sphagnum moss, which ran from a low of.19athousand to a high of .60a thousand.

Now, let's get down to the real reason I'm up here. That is, to see if we cannot come up with a suitable alternative to the old standby moss. From all of the information that I have been able to gather from the materials you all were kind enough to send me, those of us who have been using moss have but four logical alternatives. The first alternative is to go ahead and continue to try to use moss. For reasons already expressed, I personally have ruled that one out. Mainly the reasons are, scarcity of supply and rising costs, as you already know. Of course, this isn't really an alternative - this is just going ahead doing the same thing we have always done and hoping things will get better.

The first real alternative is to do what the State of Virginia has done - go exclusively to the clay dip method of moisture retention. Incidently, one of Kentucky's three nurseries, our Morgan County Nursery, has been using this method for three years now with seemingly satisfactory results.

The second real alternative is to switch to something akin to kraft poly-ethylene bags. As you probably know, in this process the seedlings are placed in an air tight, water tight bag with or without a few handfuls of moisture retention material and sealed.

The third alternative is one that is a more recent development than the other two. It has been used by Pennsylvania Nurseries for about two years now. They have not done any extensive testing, but they claim that the substance is every bit as good as sphagnum moss. Illinois is another state that is trying it. It is manufactured by Conwed and is called "root wrap". I don't know for sure but from the description I got from Florida, it is similar to their Kim-Pac.

Gentlemen, from all that I could gather from your returned questionnaires and various other materials you were kind enough to send me, and from what I was able to gather from talking with other states outside of our area, these are our alternatives. It goes without saying, that these are not our only alternatives, but from my viewpoint they are the best ones we have available at the present time.