THE NEW ERA--SHORTAGES--MULCH

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Experience has taught the Nurseryman that some type of mulch is necessary to produce uniform seedling crops.

Over the years many mulches have been tried, but only a few are on the preferred list. Mulches preferred by most Nurserymen are:

1. Pine Straw
2. Sawdust
3. Hydro-Mulch
4. Wood chips & bark
   (a) Saw Kerf Chips
   (b) Chipped Veneer
5. Grain Straw
   (a) Oats
   (b) Rye
   (c) Wheat

Many other mulches are being tried, some of these are:

1. Sand
2. Burlap
3. Cotton fabric
4. Pulp
5. Plastic
6. Shavings
7. Ground pine cones
8. Petroleum mulch
   (a) Encap
   (b) Anionic Emulsion
   (c) Esso petroleum mulch
9. Turfiber

I could put myself in a hot spot and certainly on the defensive very quickly by proclaiming any one of the mulches mentioned as best. I carefully avoided this situation by sending out a Questionnaire to Nurserymen throughout the Southeast who graciously contributed to this paper. The balance of this paper will be an attempt to consolidate the answers to this Questionnaire.

First, we must recognize that every nursery should be considered on its own merits. Soil texture, weather conditions, slope and drainage will greatly influence the value and effectiveness of mulches applied. So remember that a mulch that gives good results in one nursery might give negative results in another. It is well to experiment on a small scale when working with a new mulch until satisfactory results are obtained. Several Nurserymen have found that a mixture of two or more mulches gives the desired results they need in particular situations. So let me emphasize what is best for one nursery is not necessarily best for another.

When deciding on a mulch take into consideration:

1. Availability
2. Cost
3. Application
4. After care

There is unamious agreement that a good mulch must have the following characteristics:

1. Good moisture retention
2. Erosion Control
   (a) Allow water absorbtion
   (b) Prevent run off
   (c) Hold bed edges
   (d) Prevent sand splash (wash out of seed)
   (e) Prevent crusting or surface hardening
3. Maintain compatible ground temperature for germination
4. Have good resistance to wind and heavy rain.

Several mulches have most of these desired characteristics, some better in similar circumstances than others, but basically it boils down to what is available and economically feasible. Advantages and disadvantages for a particular mulch should be carefully scrutinized before getting too involved.

The favorite mulch among the Nurserymen polled by the Questionnaire is pine straw, followed by sawdust, then Hydro-mulch. Tabulation of the responses are as follows:

	Type Mulch	Percent Favoring
1.	Pine Straw	40%
2.	Sawdust	26%
3.	Hydro-mulch	20%
4.	Wood chips & bark	8%
5.	Grain Straw	6%

The Questionnaire pointed out that many Nurserymen are not using the mulch they prefer. The table below points out what is being used in most nurseries.

	Type Mulch	Percent Using
1.	Sawdust	30%
2.	Pine Straw	23%
3.	Hydro-mulch	23%
4.	Wood chips & bark	17%
5.	Grain Straw	7%

Reasons why Nurserymen are not using their preferred mulch is probably two fold--(1) Availability and (2) Cost.

Many nurseries are lucky to the extent that they are located where there is an ample supply of available mulching materials, such as sawdust, pine straw, chips, bark, etc. Others are less fortunate. My advise is to take advantage of these available materials as long as they are feasible.

Pine straw has become more and more difficult to procure and will get even more difficult unless plans are made to preserve timber stands near nursery sites for pine straw harvest. One good source for pine straw is from seed orchards. A side delivery rake windrowing straw to the center between tree rows, followed with a hay baler is a good system to use.

Sawdust is still plentiful in many areas. Even though sawmills are a scarce item, old sawdust piles dot many areas. This material is preferred to new sawdust since it has had some time to decay. Most of the time this material is free for the asking, but once this old source is exhausted, sawdust will be a thing of the past. The trend today is toward complete utilization of wood. This trend must come quickly if we are to supply wood needs for the future. Future wood needs could even gobble up old sawdust piles that you have an eye on for mulch.

An easy way to spot these old sawdust piles is from an aerial photograph, or a quick plane ride.

Hydro mulch is gaining popularity every day. As sources for pine straw and sawdust diminish, hydro mulch fills the gap. This trend will continue. More Nurserymen will be taking a good hard look at hydro mulch. The only thing that will prevent hydro mulch from being number one in usage will be cost.

Jim Guerry, Jr., a salesman for J.H. Dowling, Inc. Tallahassee, Florida who handles the Conwed Hydro-mulch stated in a letter to me that demand for hydro mulch has increased over 100% in the last six months in Florida. The price of this material has been consistently stable over the past few years, but did increase in the first quarter of 1974. It is probable that another increase will follow.

Jim mentioned a new material which they will be selling called Conwed Hydro-mulch 2000. This material is a mixture of the Standard Hydro-mulch and an adhesive which serves as a soil stabilizer and erosion inhibitor.

A good source of mulching material is grain straw. Several Nurserymen are growing grain as a cover crop and harvesting before grain heads out. This straw is bailed and used for mulch.

Cost for mulches varies greatly from one nursery to another. Those who have easy access to materials report low cost while others report high cost. Cost range for mulching materials as reported by the Questionnaire is from $20.00 to $360.00 per acre. Type of material used and accessibility controlled cost. The range of cost as reported by the questionnaire is as follows:

Sawdust	$20.00	to	$60.00 per acre
Wood chips	$50.00 per acre		
Pine straw	$50.00	to	$300.00 per acre
Hydro mulch	$100.00	to	$150.00 per acre

One Nurseryman reported using bark and chips, costing $300.00 per acre, while another reported using rye straw costing $360.00 per acre.

There is no immediate shortage of mulching materials. Nurserymen should know what materials are available and how to procure and use them. The future, certainly holds a few challenges for us. Do not panic--change to the next best mulching material when your favorite mulch is exhausted. Be ready when the time comes to make necessary adjustments without getting caught with your pants down.