

## MULCH

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The dictionary gives this definition. A material spread on the ground around plants to protect the roots from cold or heat, to prevent evaporation of moisture, to check weed growth, to shelter from the elements, to decay and enrich the soil itself and to keep the plant clean.

We nurserymen would like to consider it a magic elixir to be spread over the seed bed to enhance seed germination so we would have a nice uniform seedling stand each and every year. No matter how hard the wind blew, no matter how much it rains, no matter what happens this elixir just stays there and holds the world together until we get our seedling stand. Ah, utopia - you're just not for us.

That's why each of us have tested numerous material for possible use as a seed bed mulch. That, plus the fact we'd like to save a buck if we can.

Do you realize just how many mulch materials have been tried and or tested. Pine straw, rice straw, oat straw, sawdust, sand, paper-mulch, burlap, mulchnet, cellulose wading, erosionnet and on - to name a few.

Back in 1956, when I first became involved in this fascinating, intriguing nursery business, I went to the Southwest Nursery at Oberlin, Louisiana where I met Gene Turner and Burke Hill. This was in the fall of the year and my first experience for nursery practice was gathering mulch.

We took a crew of men, a truck and a bunch of rakes and went to the woods and gathered pine straw for next years seed bed mulch.

Do you know that's exactly what we do today at the Beauregard Nursery. I grant it's a little more sophisticated, but essentially it's still the same.

Labor being what it is - extremely costly - has made us improve on the technique. We now use fire crews to collect the straw for us.

A tractor with an automatic dumping buck rake is used for gathering and rowing. A baler is used to compress, thus decreasing the hauling trips. A dump truck is used for unloading. A chopper is used for loading the mulching buggy.

And that's the same mulch used now as it was back then. Why are we using pine straw? What does it have going for it?

1. Free - That is, it's there for the taking.
2. Handy - It's there in the woods beside you.
3. Bed holding ability - It stays there and does the job as good or better than anything yet tried.
4. Moisture holding ability is good.
5. Organically decomposable

Therefore, it seems pine straw does the job and has a wide range of advantages. It comes nearer to meeting the nurseryman's needs than any other material yet found.

Of course, you and I know it's not perfect. All that handling means it's expensive. It must be put on the bed evenly and at a certain depth. The elements can move it. Finally we haven't controlled the foreign parasites pine straw can introduce.

Fresh pine straw mulch piles can be treated effectively with methyl bromide. The stacked bales need to be completely covered with heavy mil (4 or 6) plastic. Treat with the recommended rate of gas (one pound per 25 cubic feet) for a 48 hour period. I have found this will eliminate most of the problems by giving a relatively sterile mulch.

All of us are experimenting with other material for use as mulch. This can be from any number of reasons. The problem can be universal or it can be localized and pertain to an individual nursery. Whatever the reason all of us want to improve and would change to another mulch if the end results mean having a better seedling crop.

This year I tested hydro mulch in combination with petroset. A one acre area was used for the test purpose and comprised of two blocks. A different rate was tried on each block.

The mulching machine used was a 500 gallon Bowie hydro mulcher.

One block was tested with the following. Three bales of conwed mulch, 5 gallons of petroset and enough water to make the 500 gallon slurry were mixed together. This material was sprayed on the bed surface until it appeared adequate cover was obtained.

The second block was treated with 2 1/2 bales of conwed mulch, 4 gallons of petroset and enough water to make the 500 gallon slurry.

The seedling beds were irrigated and kept in a moist condition for the thirty day germinating period.

In conclusion this is what I found. The germinating seed had a hard, difficult time emerging thru both these test rates. The test beds needed more irrigation to be kept in a moist condition.

The crux of it comes down to seedling population per square feet of bed space. The pine straw mulched beds have a density of 30.3 per square foot. The test area density is 19 per square foot with only a one tenth difference between tests.

The material held up well and no difference in bed erosion could be noted between the test area and the regular area. I am convinced this combination of mulch material has potential and intend to test other variations next year.