

BLACK POLYETHYLENE PLASTIC FOR MULCHING NEWLY PLANTED TREES

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Under most conditions it is an expensive problem to keep weeds out of basins of newly planted trees. Too often the weeds are allowed to grow large enough to appropriate water and fertilizer badly needed by the trees. This is especially true where perennial grasses and weeds such as Bermuda, ragweed, wild morning-glory, etc. infest the land.

Polyethylene plastic sheeting is coming into quite general use as a weed preventing mulch in connection with various crops to which it can be adapted. The writer has made tests with black plastic sheeting for preventing weed growth in the basins of newly planted trees which are watered by hose, spitters or sprinklers. These tests have proven highly successful and economical.

The manual labor of hoeing weeds is expensive and too often is overlooked or neglected, especially in connection with replant trees in perennial weed infested orchards. The cost of the 5x5 foot sheets will vary between 25 and 30 cents depending on quantity bought and whether they are pre-cut to size. In strips the cost may vary between 1 and 1¼ cents per square foot. If demand proves sufficient to warrant large production the cost may be lowered.

Of the various sizes and thicknesses experimented with, sheets five feet square and 0.0001½ mm. thick have been found most satisfactory. A slit made from one side to the center permits close fitting around the tree trunk with some lap at the slit. The corners reach over the rim of the basin and are held down against the wind by a shovel-full of earth. After the sheet is pressed down in contact with the bottom of the basin, one or two very small holes (as with the point of a pencil) are made at the lowest point to prevent a water puddle.

The plastic should be placed as soon as the tree is planted. Black plastic mulch accomplishes three things: Prevention of any weed growth, prevention of any water loss by drying of the surface soil, and increase in soil temperature in spring by absorption of solar heat.

The use of plastic mulch on furrow irrigated trees is being experimented with. Because of the greater area of soil covered by continuous strips two feet wide and the additional labor of placement, the cost per tree will be greater depending on distance between trees. However, this greater cost may be compensated for by preventing weeds from clogging the furrows and wasting water. Water is introduced under the light plastic and flows under it. Making T-shaped slits midway between the trees with the stem of the T pointed up-stream permits any water which gets above the sheet at the tree slit to get back under. The occasional small amount of nitrate needed may be applied with a spoon through the slit at each tree. Final results of the use of plastic in furrow irrigation can be reported on at the end of the irrigating season.