

Producing Tobacco Transplants in Plant Beds

*Richard A. Hensley, Research Associate,
Department of Plant Sciences*

Only about 20 percent of Tennessee's tobacco transplants were produced in conventional plant beds in 1999. This trend of using fewer plant beds will continue, especially with the projected phase-out of methyl bromide by 2005.

Careful attention to the following basic practices will help growers produce quality transplants in plant beds:

- An ideal location for a plant bed should be convenient for daily monitoring, have well drained but not droughty soil, be slightly sloped to the south or southeast, and have windbreaks to the north and northwest sides.
- Prepare the soil so water drains away from the bed.
- Fumigate with methyl bromide for weed control. Soil temperature must be at least 50 degrees F and the soil should not be excessively wet or dry. Apply 9 pounds per 100 square yard (typically 9 feet by 100 feet) bed.
- Don't over-fertilize. Apply 50-75 lbs of 4-16-4 or 50 lbs of 12-6-6 or 10-10-10 per 100 square yards. If topdressing is needed, use 3-6 lbs of nitrate of soda per bed. Organic forms of nitrogen, such as milorganite, are not recommended.
- Seed 1/6 ounce (2 level teaspoons) per 100-square-yard bed. March 1-20 is the recommended seeding period. Tamp or roll the soil for improved seed-soil contact, but do not cover the seed. Mulch with a thin layer (about 20 lbs per bed) of fumigated straw or pine needles.
- Water (1/4-1/2 inch) after seeding, and do not allow the soil surface to dry out until an adequate stand is established. Note that 280 gallons are required for a 1/2 inch watering on 100 square yards.
- Clip plants beginning when the largest leaves reach about 4 inches in height, and repeat at 4-5 day intervals as needed. Clip at 1/2-1 inch above the buds of the largest plants, using a lawnmower, string trimmer or rotary mower.
- Monitor daily for diseases and insects, and treat as needed with labeled pesticides.
- Water beds before pulling plants, unless rain has recently occurred. Store pulled plants in shade until needed. Do not allow roots to dry out. Plants about 6-8 inches tall to the bud and with a stem diameter the size of a pencil are considered ideal transplants.
- Destroy all remaining plants in the bed as soon as transplanting is completed, then seed a cover crop.

