Specialty Mushroom Cultivation

Researchers - Dr. Omon. S. Isikhuemhen, Ms. Kasey Vaughans, Ms. Naima Nasri, David and Debora Rich, Annie and Ernie Martin (mushroom farmers)

Objective — The focus is to inform small farmers about the edible and medicinal mushroom project, provide an overview of the different cultivation methods and expose participants to hands-on practical exposure to inoculation of mushrooms into cultivation logs.

Opportunity — New crops and production technologies are sought to provide North Carolina tobacco farmers with alternative-farming practices that can replace the failing tobacco industry. Edible and medicinal mushroom cultivation by farmers is one of the areas that the Golden Leaf Foundation has targeted. The Mushroom Biology and Fungal Biotechnology Laboratory (MBFBL) at N.C. A&T is given the responsibilities to develop low-cost production technology and train farmers in commercial cultivation of edible and medicinal mushrooms. This approach allows farmers to begin with minimal investment, low risks associated with mass production and learning the cultivation processes over the period of time that is necessary to put in place good marketing strategies for the expected high volume of mushroom production.

Method — Inoculation of hardwood logs with suitable specialty mushrooms and managing them under forest floors are the first steps a North Carolina farmer should take.

We demonstrate to farmers how to inoculate logs and manage them for production. Farmers have the opportunity for hands-on inoculation.

At the beginning of mushroom cultivation by small farmers, the needed logs can be easily obtained at little or no cost. Inoculation materials and mushroom spawn are the most expensive materials that the farmer will need.

Discussion — The time for log cutting and inoculation is usually from December through March of each year. Therefore, it does not interfere to an appreciable extent, with the traditional spring and summer growing seasons, when farmers are engaged in traditional farming practices.

Mushrooms fruit during the spring and fall of each year, which in most cases, the picking is an activity that a farmer can do either early in the morning or late evening, before or after major farm work, respectively.

Aspects of mushroom cultivation require sophisticated technical knowledge in the propagation of mushroom spawn or “seed.” The other aspects are relatively simple for farmers to undertake.