Introduction

Interest in commercial sod production has risen in Florida due to increased demand for an instant turf by many building contractors and their customers. Sod production involves growing a solid stand of desirable grass species and then harvesting it intact with a thin layer of soil and roots attached to it. As with any new enterprise, cost and profit potential must be weighed before investing in equipment, land, and labor for production. The purpose of this publication is to list and discuss basic cultural practices and equipment required to produce quality sod.

Sod Production Outlook

The short- and intermediate-range outlook for turf sod production is good. With the continued influx of people moving into the state and a steady building construction industry, demand for quality sod remains strong. Florida's long growing season also offers green grass almost year-round, whereas neighboring states do not. Competition, however, is becoming keen; therefore, potential sod producers should explore markets prior to investment. Demand for turf sod is closely linked to housing starts and industrial development.

Site Selection

Ideally, a site to be chosen for a sod farm should be based on several criteria: location (distance) in relation to targeted market, accessibility to major roads and highways, available water quantity and quality, soil type, land costs and preparation requirements.

In order to reduce shipping costs and because sod is a perishable product, a sod farm should be as near to an urban area as is practical. The suggested limit for transporting sod is 300 miles with a 100 mile limit being preferred (4). Sod that is stacked on pallets should be unstacked and laid within 72 hours after harvest, preferably within 24 hours. This is especially critical during summer months. Refrigerated trucks have been used to prevent sod deterioration when high quality sod is transported over long distances. Sod on pallets waiting to be loaded or unstacked should be kept as cool as possible. Placing pallets in a shaded environment such as under trees or under shade cloth prolongs the sod's life.

Production

Production practices are divided into several areas: establishment, primary cultural practices, pest management, and harvesting. Establishment involves land preparation, soil improvement, irrigation installation, and turf planting.

Land Preparation and Establishment

Prior to planting, the new turfgrass site should be prepared to correct any present problems and to avoid harvesting difficulties. Preparation includes land clearing, removal of trash, land leveling, tilling, installation of drainage and irrigation systems, roadway and building site selection, soil fumigation, and land rolling. The cutter blade on the sod harvester rides on a roller, allowing the unit to bridge the little hills, valleys, and holes in the field. However, if the surface irregularities left by poor soil preparation are too severe, the blade will not uniformly cut the sod; therefore, the yield will be reduced. Proper soil preparation also eliminates layers or hard pans, provides better air and water movement, and enhances deep rooting. Many Florida sod sites have poor drainage; therefore, extensive leveling, drainage ditch digging, and installation of drainage tile may be required. Contact your local Soil Conservation Service for further assistance with these procedures.

Soil test the area under consideration to determine lime and fertilizer nutrient requirements. Apply and incorporate these amendments prior to turf establishment.

Usually, land is subsoiled to break up any hardpans and then plowed with either a moldboard or chisel plow to a depth of ten inches. This practice of breaking the subsurface hardpan should not be followed if subsurface irrigation is being used. Follow subsoiling with soil incorporation of preplant fertilizer or liming material. Firm the seedbed with a cultipacker roller. The surface must be as smooth and uniform as possible. The use of a laser plane for land leveling is suggested. The field should be planed in several directions to eliminate as many surface irregular spots as possible. After planing, dry soil is considered too fluffy if footprints are more than 1 inch deep (2). In this case, the field should be firmed by rolling it.

Preplant fumigation is strongly recommended where previous weed, disease, and nematode problems existed. Major weeds in sod production include common bermudagrass, nutsedge, torpedo-grass, sprangletop, and crabgrass. Preplant fumigation will be discussed in the Pest Management section.