

Tips On Managing Diseases On Tobacco Seedlings In 2009

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At the moment, tobacco producers around the state are getting into high gear to begin growing transplants. Healthy transplants are a cornerstone of a successful tobacco crop, and disease in the float system often interferes with the production of high-quality seedlings. Planning and preparation now can lead to better disease control and better yields of transplants in the spring.

A preventive approach is a must to be successful against the pathogens that we encounter in the float system. The disease-conducive environment and limited number of fungicide tools dictate this type of approach. Here are some considerations in developing a preventive disease management strategy:

Avoid the introduction of plant pathogens into the float system. Water from ponds or creeks can harbor fungi like *Pythium* or the black shank pathogen that devastate a float bed. Keep soil out of float bays – this can also cause certain plant pathogens to be introduced into the system. Produce your own plants, or buy from a Kentucky source if at all possible. Historically, blue mold has been introduced into KY from plug plants that originated in Florida. Those growers that still utilize the plug-and-transfer system should consider buying KY-grown plugs or those produced in northern areas. Contact your dealer or the UK Cooperative Extension Service for more information.

Seed into clean, sanitized trays. New trays will not harbor plant pathogens, but re-used trays pose more of a risk. Trays can be sanitized by dipping or spraying trays with a 10% bleach solution. Afterward, cover trays and allow them to stand overnight, and follow up with a good rinse

to remove bleach residue. Trays that have been used for several years will be difficult to sanitize effectively with bleach. Steaming older trays at 165-175 °F for 30 minutes is the most effective way to eradicate pathogens, but watch temperature and steaming time carefully to avoid damage to trays.

- Dispose of unused or diseased plants quickly and properly. Bury or burn the plants, or discard them at least 100 yards from float beds or tobacco fields.

- Keep your transplants as stress-free as possible. Avoid temperature extremes and keep fertilizer levels in recommended ranges. Plants that are under- or over-fertilized are more susceptible to diseases in general.

- Maintain good air movement through the use of side vents and fans. Keep the area around float beds weed-free. Good airflow promotes rapid drying of foliage, creating less favorable conditions for diseases.

- When clipping plants, use a high-vacuum clipper to avoid the buildup of leaf matter in float trays. Some pathogens use leaf debris as a food base to become established and then spread in the float system. Sanitize your mower regularly with bleach to avoid pathogen spread.

- Consider a regular fungicide program to control root and leaf diseases. Fungicides are cheap insurance considering the high value of your transplants. Consult ID-160, the 2009 Kentucky Tobacco Production Guide, for specific recommendations.

Disease-free transplants pay dividends down the road because they are more vigorous and less prone to attack by pathogens in the field. Proper management of diseases in the float system will help insure that your tobacco crop gets off to a good start. Δ