Virginia Cooperative Extension

VirginiaTech Invent the Future

www.ext.vt.edu

VIRGINIA STATE UNIVERSITY

Answers to Some Questions that Blueberry Producers have Asked

H.D. Stiles, Small Fruit Specialist, Southern Piedmont AREC, Blackstone, VA

Why aren't my blueberry plants growing well?

Common causes of poor growth in blueberries include: pH of soil too high (i.e., not acid enough) or too low; soil drainage or aeration is poor; pH or salt content of irrigation water too high; there's too little organic matter in the soil; too little or too much fertilizer is being applied; there's too much competition from grasses or other weeds; nearby trees or buildings provide too much shade; you're leaving too many fruitful buds during dormant pruning; roots are being injured by cultivation or pests; fungi that cause stem blight disease have grown down into the crown; poor soil drainage (or too much rain during cool weather) has allowed Phytophthora fungi to infect and damage the roots.

What can I do to avoid problems and improve my chances of success in future plantings of this crop?

1. kill perennial weeds and reduce troublesome annual weed seed reservoir at least a year before the projected date of planting
2. if soil pH is not close to optimum (4.2 to 4.8) incorporate sulfur (not aluminum sulfate) or lime according to laboratory recommendations; delay planting date about 6 months from sulfur application
3. install raised beds while incorporating well-composted organic matter throughout the bed's profile
4. use shallow transplanting techniques so that the entire root system is distributed near the soil's surface (generally no roots should be deeper than 6"); this is critical on sites with marginally heavy soils
5. keep grasses and weeds at least 2 feet from the plant throughout the plantings life
6. remove all fruitful buds at time of transplanting and during the next 1 or 2 winter-pruning seasons
7. remove 30% to 50% of all fruitful buds during winter pruning in mature plantings; prune annually to maintain fruit size, plant vigor, a manageable plant size, and a favorable micro-environment (light and air movement) within the canopy
8. maintain soil pH between 4.2 and 4.8 throughout the plantings life
9. fertilize annually and use tissue analysis to monitor nutrient status of the planting
10. irrigate to maintain adequate soil moisture for good fruit size and vigorous plant growth; stress may reduce crop production in both the current season and the following year(s)

Originally printed in Virginia Vegetable, Small Fruit and Specialty Crops – January 2002.