

Advances in Organic Highbush Blueberry Production Systems

Sciarappa, William; Polavarapu, Sridhar; Barry, James; Oudemans, Peter; Ehlenfeldt, Mark; Pavlis, Gary; Polk, Dean; & Holdcraft, Robert

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Abstract

*Several significant developments have occurred that amplify opportunity for certified organic growers to successfully grow highbush blueberry (*Vaccinium corymbosum*). First, the 2002 USDA national organic standard helped define organic production practices and crop labels that created clarity and evened competition. Second, the continued increase of smallfruit and vegetable sales related to nutritional and human health reasons and the related market perception valued organic produce more highly. Third, new tools are increasingly available to organic growers that reduce the risk from pest problems such as the recent Organic Materials Review Institute (OMRI) listing of spinosad registered as a wettable powder (Entrust®) and a fruit fly bait (GF-120 NF Naturalyte). The Rutgers University Blueberry Working Group has made considerable progress in refining Integrated Pest Management (IPM) practices and in developing new tools for organic production systems. This nine-year program has investigated alternative approaches to some current agricultural practices in soil building, fertility, cultural approaches, and pest management. Commercial organic methods have been demonstrated in managing new sources of mulch, two key insect pests, two common diseases, and several weed species in establishing a commercial organic production system for highbush blueberries. As a programmatic result, organic acreage in New Jersey has increased from 0 to over 200 acres during this time and over 60 organic growers have adopted parts of this holistic production system in North America.*

From a horticultural and pest management standpoint, current tools can provide an effective commercial control, reasonable cost, and environmental advantages. A general pest management plan was devised to serve as a starting point for organic program development. The reduced risk of this integrated system encouraged expansion of organic blueberry acreage. Similarly, conventional growers can more confidently switch to organic certification. Marketing insect-free fruit produced through sustainable organic programs provides a successful agricultural food chain model for consumers, growers, and the environment alike. These breakthroughs may just be the beginning of safer and more effective crop management and plant protection programs in the future.

From a marketing perspective, more than 3,000 hectares of blueberries are grown in NJ with less than 2% volume produced organically. The authors believe that the agribusiness situation is that of an advanced market ahead of agricultural research, and consumer demand ahead of supply. The price of a flat of organic blueberries has ranged from \$18 to \$28 over the last three years while conventional production prices have generally ranged between \$8 and \$14 per flat. Enterprise crop budgets show economic profitability to go along with cultural and environmental benefits.