

Use of Sparkleberry as a Potential Rootstock in Commercial Blueberry Production

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Southern highbush blueberry (SHB) has specific soil requirements that include high soil organic matter (OM) content and low pH. Southern highbush blueberry is often grown in sandy soils that are acidified and heavily amended with OM. In the southeast U.S., pine bark is the primary source of O.M. Pine bark represents a major establishment cost and additional pine bark is needed every two to three years to maintain plant health. Blueberry plants grown on pine bark amended soils are shallow-rooted and subject to diurnal and periodic drought stresses during warm weather, which reduces yield. After establishment, the single greatest SHB production cost is hand harvesting. Although grower interest in machine harvesting of SHB is high, the wide, multi-caned crown of SHB is not conducive to efficient mechanical harvesting. *Vaccinium arboreum* (sparkleberry) is a small tree that is native in the southeastern U.S. and has the following beneficial traits for consideration as a blueberry rootstock: 1) graft compatibility with SHB; 2) single trunk architecture; 3) deep, expansive root system; 4) tolerance to low soil OM; and 5) greater tolerance to high soil pH than SHB. Research with *V. arboreum* as a blueberry rootstock is ongoing. To date, our research shows increased fruit production for grafted SHB compared to non-grafted SHB under both amended (high OM) and non-amended (low OM) soil conditions.

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