

## VAES 99-1

### **Limited Arm-Rotation Shift-Trellis (LARS) and Primocane Management Apparatus (PMA) for Raspberries and Blackberries (*Rubus* cvs. or crops)**

H.D. Stiles, March 1999

One-sided shift-trellising (OSST) and related training systems were originated as means of accommodating the biennial growth phases and habits of summer-fruiting raspberries and blackberries (Stiles, 1995a, 1995b, 1996). These systems manipulate the plant's canopy so that floricanes and primocanes are spatially separated from each other and their intra-canopy competition for sunlight is essentially eliminated. This manipulation also isolates the fruiting zone to one side of the trellis where fruits are readily accessible and easily harvested. Through such changes in the plant's configuration, air circulation within the fruiting zone and foliar canopies is freer so that fungus or bacterial diseases and fruit rots may be inhibited. With proper orientation of trellises and fruiting zones, certain OSST systems can be used to reduce sunscald and minimize the amount of "field heat" in harvested berries (Stiles and Tilson, 1998 abstract; Tilson and Stiles, 1998 abstract).