

## Estimated Infrastructure Costs for Block Establishment at SRO/CV

### Estimates based on:

- Block Size 1 acre = 27 Rows @ row spacing 10' & row length 160'
- Sub mains and risers already installed.
- Estimates don't include sales tax
- Suppliers work in bulk orders
- Work with Orchard Manager to plan block

**Fumigation:** \$1350/a

### Trellising:

1. Poles:
  - 4" x 12' Poles – 70 pole bundle \$15.00/pole
  - 5 poles/row x 27 = 135 = \$2025
2. Wire:
  - spool (3900') = \$82.50
  - 4 wire trellis + anchor wires = (160' x 27 x 4) + (40' x 27 x 2) = 19440'
  - total of 5 spools = 412.50
3. Anchors:
  - 3' x 6" plate anchors \$4.25 each
  - 27 x 2 x \$4.25 = \$229.50
4. Hardware:
  - staples and crimps as needed
  - wire tightener \$2.43/ea = 27 x 6 x \$2.43 = \$393.66

### Irrigation:

1. Drip tube: 1/2" tube 1000' roll 145.50 = 170' x 27 = 4590' = 5 rolls = 727.50
2. Micro sprinklers:
  - est. 120 sprinkler heads/a
  - 1/2" poly tube 1000' roll \$77.80 = 5 rolls = \$390
  - 1/4" spaghetti tube 1000' roll 130.50 = 2' x 120 = 240' = 1 roll
  - nipple \$0.18/ea x 120 = \$21.60
  - metal stakes \$0.61/ea x 120 = \$73.20
  - nelson adapter \$0.74/ea x 120 = 88.80
  - R-10 sprinkler heads \$2.92/ea x 120 = \$350.40
3. Pressure regulators \$6.31/ea x 54 = \$340.74
4. 3/4" – 1/2" adapters \$1.83 x 54 = \$98.82

### Labour:

- Orchard hourly workers are used in spring for trellising and irrigation installation. They are potentially available for planting if new block is not a randomised design.
- Hired hourly worker \$25/hr

- Each job is variable but expect labor costs to be in the thousands

### **Equipment Rental:**

- Trellis post rammer + KX80 Track Hoe \$880/day
- Orchard managers decision is rental is required i.e. if the job is big enough

### **Training:**

1. Bamboo Stakes:
  - 7/16" x 5' = \$45.00/ bundle of 250
  - 1452 trees/a @ 10' x 3' = 6 bundles = \$270
2. Hardware:
  - bamboo clips 3000 costs \$165
  - tree clips 3000 costs \$415.74

### **Trees:**

Researchers are responsible for sourcing trees. Costs are variable based on type, cultivar, rootstock, size, and year. Sourcing suitable trees on time is the largest limiting factor in establishing a new block. Talk with the nurseries and plan on ordering early. N.B. SRO is a high-density orchard. Rootstocks need to be approximately M9 size for management purposes. If you plan to use larger rootstocks, please discuss this with the orchard manager before ordering.

### **Removal:**

- Researchers are responsible for funding the removal of tree and trellis system at the end of the project. PI agrees to pay for all related costs of removal including but not limited to; hired labour, contractor fees, and burn permits.  
Cost estimate:
  - Labour - \$25.00 / hour
    1. Est. 50 hours to remove tree clips
    2. Est. 25 hours to remove wire
  - Contractor with excavator - \$2000/acre
  - Burn permit - \$88
- Or alternative arrangements are made subject to approval from Center Director.