



- A: Soil temperature sensor at 4 in (10 cm) depth. (All Replications)
- B: Air Temp + RH at 6 in (15.24 cm) above the bed (All Replications)
- ★ C: Light sensor at 10 in (25.4 cm) above the bed (2nd replication only)

Figure 1. Cross sectional diagram of treatments (dual layer, single layer, and conventional system) and sensor locations.

Table 1. Field activities schedule for 2011-2012.

Activity	2011	2012
Pre-germinated cucumber seeds in lab.	4/24	4/22
Tomato Transplants and cucumber seeds were planted on black mulch raised bed.	4/26	4/24
Installed temperature, relative humidity, and light sensors.	4/26	4/24
Installed low tunnels.	4/26	4/24
Sampled tomato transplants.	4/26	4/24
Vented low tunnels.	5/20	5/22
Removed low tunnels.	6/3	5/24
Replanted missing cucumber plants within all treatments.	-	-
Planted cucumber seeds and tomato transplants within normal planting date control treatments.	5/27	5/24
Tomato transplants planted in April are starting to flower.	5/27	5/24
Removed 2 plants per treatment for sample.	5/27	5/24
Replanted tomato transplants in the normal planting date control treatments.	-	-
Took tomato plant heights.	5/27	5/24
Reduced tomato plants to two shoots, leaving the 1st sucker below the 1st flower.	6/3	-
Thinned cucumbers planted in April to two plants per hole.	5/27	5/24
Tomato plants were staked.	5/23	-
Sensors removed.	6/3	5/24
Took tomato plant heights.	6/3	5/31
Thinned cucumbers planted in May to two plants per hole.	6/3	5/31
Cucumber plants planted in April are starting to flower.	6/13	-

Table 1. Harvest schedule for 2011-2012.

Cucumber Harvests	2011	2012
First cucumber harvest.	6/27	6/25
Second cucumber harvest.	7/2	6/28
Third cucumber harvest.	7/5	7/2
Fourth cucumber harvest.	7/7	7/5
Fifth cucumber harvest.(First cucumber harvest normal planting 2012.)	7/11	7/9
Sixth cucumber harvest. (First cucumber harvest normal planting 2011 and first tomato harvest early planting 2012.)	7/14	7/12
Seventh cucumber harvest.	7/18	7/16
Eighth cucumber harvest.	7/19	7/19
Ninth cucumber harvest.	7/21	7/23
Tenth cucumber harvest.	7/25	7/26
Eleventh cucumber harvest.	7/28	7/30
Twelfth cucumber harvest.	8/1	8/2
Thirteenth cucumber harvest. (Final (ninth normal planting) cucumber harvest 2012.)	8/4	8/9
Fourteen cucumber harvest.	8/8	-
Fifteen cucumber harvest.	8/11	
Sixteen cucumber harvest. (Final (eleventh normal planting) cucumber harvest 2011.)	8/12	-

Table 1. cont.

Tomato Harvests	2011	2012
First tomato harvest.	7/19	7/12
Second tomato harvest.	7/25	7/19
Third tomato harvest. (First tomato harvest normal planting 2011 and 2012.)	8/1	7/23
Fourth tomato harvest.	8/4	7/26
Fifth tomato harvest.	8/8	8/2
Sixth tomato harvest.	8/15	8/9
Seventh tomato harvest.	8/22	8/14
Eighth tomato harvest. (Final early planting tomato harvest 2011.)	8/30	8/22
Final tomato harvest normal planting 2011 (seventh).	9/7	-
Final tomato harvest normal (seventh) and early (ninth) planting 2012.	-	8/29