**Hops: The Establishment of a Pilot Hops Field at the Snyder Farm, 2016, Rutgers SARE**

**Brief Background of Activities**

**Tillage**

*4/15/2015* The field was chisel plowed; *5/1/2015 and again 5/11/2015:*  The field was heavy disced.

**Bed Preparation**

Raised beds were prepared with bed maker (30 inches wide and 4 inches high).

*7/27/2015*: Land was prepped for grass by rototiller and then roller harrow.

**Trellising (***Materials)*

24x 23’ Wooden Poles (ag grade treated southern yellow pine) @ $90 per pole

12.5 gauge heavily galvanized barbed wire across top.

11 gauge guide wire for end poles.

A total of 48 hours of labor was required to erect the trellis system (2 people at 24 hours per person).

**Plant Material:**

Crosby Hops Woodburn, OR - Hops were purchased as rhizomes and transplanted into the fields 1st week June 2015.

***Nugget, Chinook, Centennial***, ***Mt. Hood***

Zerillos Greenhouse Syracuse, NJ – Purchased as young (approx. 2-3 month old) cuttings and were planted the second week of July 2015.

***Cascade****,* ***Newport, Sorachi Ace, Ultra, Saaz, Willamette***

*7/28/2015- Grass between hop rows is Lesco All Pro Transition Seed Blend Tall Fescue Mix seeded at a rate of 400 lbs per acre ad planted with Brillion grass seeder.*

**Fertility**

*5/1/2015*- 20-10-10 broadcast with Gandy, and incorporated with disc.

*6/4/2015*- Application of Adams Earth Solution to rhizome transplants at 15 floz per plant. Solution rate was 12 floz per 50 gallons of water.

*7/13/2015* – Application of 100 lbs/acre of 46-0-0 through trickle irrigation.

*7/28/2015* - Application of 100 lbs/acre of 46-0-0 through trickle irrigation.

*8/18/2015 -* Application of 100 lbs/acre of 46-0-0 through trickle irrigation.

**Pesticide Applications**

*6/19/2015* – The following was applied to the herbicide strip. Application of the herbicide Gramoxone 2.0 SL at a rate of 2.4 pts/acre, LI 700 (surfactant) at 2 qts/100 gals, and sprayable ammonium sulfate at 8 lbs/100 gals.

*6/25/2015* – **Common caterpillars** were observed feeding on leaves and stems of hop plants, and the following chemicals were sprayed. Entrust at a rate of 2 oz/acre with Non Ionic surfactant at a rate of 1 ml/gal. This was applied with a backpack sprayer.

*7/16/2015* - **Leafhoppers** were observed feeding on hop cv. Mt. Hood, and the insecticide Leverage 360 was applied at a rate of 2 ml/1 gal of water with a backpack sprayer.

*8/20/2015* – **Leafhoppers** were found in the hop plots which led to all hop plants being sprayed with the insecticide Tombstone Helios at a rate of 3.2 floz/acre with Non-ionic surfactant at 5 floz per 100 gal applied with Jacto Mist Sprayer at 42 gals per acre.

*8/31/2015* – **Spidermites** were observed in the hop plots, with the most heavy infestation on the hop cv. Mt. Hood. The insecticide miticide Portal was then applied at a rate of 3 pints/acre plus Non Ionic surfactant at a rate of 5 lf ounces per 100 gals with Jacto mist sprayer at 42 gals per acre.

**As of Today’s Twilight Meeting: Harvest (yields as of 9/15/2015)**

Centennial - 23.81 ounces per 20 plants

Nugget - 80.2 ounces per 20 plants

Chinook- 185.29 ounces per 20 plants

**Your feedback and suggestions on our new hops project would be appreciated!**

**Send comments to: Prof. James Simon jesimon123@gmail.com; R. Pyne Robert Pyne** **rpyne97@gmail.com****; Megan Muehlbauer** **meganmu@scarletmail.rutgers.edu**

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