Hop Cover Cropping

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Cover Crop:

Field planting with the primary purposes of increasing soil water-holding capacity, decreasing soil erosion, fixing nitrogen, controlling pests and weeds. (Lu et al. 2000)
Cover Crop Hypothesis

- Plant diversity (habitat)
- BOTH # pests and # natural enemies
- Pest abundance & damage over time

(Tooker et al. 2012 and Grasswitz et al. 2009)
Study Plots

Key:
- Mowed Control
- Red Clover
- Added Diversity
- Sample space
- Mulch

Legend:
- N = Nugget Variety
- C = Cascade Variety

10ft
- RED CLOVER
- DIVERSE
- CONTROL

30ft
- RED CLOVER
- DIVERSE
- CONTROL

= Control
= Red Clover
= Added Diversity
1. Do different cover crop types effect #pests or #NEs on hops?

Not yet.

- No significant difference between control, clover, and diverse treatments in # of pests OR # of natural enemies on hop plants

Why?
- Cover crops mature overtime
- Arthropods travel
- Cover crop treatments are close to each other
- Better management practice
2. Are there hop quality or yield differences between cover crop types?

- No significant difference in hop quality or yield in any cover crop treatment.
  - Cascade or Nugget

**Conclusion:**
Cover crop presence did not interfere with hop product in 2012
Elevated arthropod community where habitat complexity provided

3. Ecological Complexity as Expected
Thank You

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Literature Cited