




1

Background

- Herbicide use in vineyards to manage weeds.
- Herbicides creates bare soil, increasing risk of erosion and soil health
- Increased herbicide \$
- Organic vineyards have few options for herbicides, and rely on manual labour (cultivation).
- Under-vine covers crops (UVCC) are an option for managing weeds in vineyards.

Benefits of UVCC include:


- Weed management
- varying degrees of impact on vine growth
- soil health benefits
- Reducing leaching of nutrients and pesticides
- Save money



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Objectives


- Replicated Trial
 - Establish 5 undervine (UVCC) treatments (3 UVCC, natural veg. and cultivation-hoe)
 - UVCC based on research from NY, Virginia, BC and ON.
 - Evaluate the use of UVCC on weed management, yields, and nutrients.
- Screening Trial
 - small plots of UVCC used in other crops to evaluate their potential in vineyards.



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Selecting an under vine cover crop

- Vineyard should be mature
- Weed mgmt only,
- Not managing vigour
- Don't require mowing
- UVCC establishment- irrigation?
- perennial/ annual




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Experimental Design

Replicated Trial


- 2 sites
- Applied by hand
- Treatments:
 - Hoe
 - Natural vegetation
 - Buckwheat
 - Birdsfoot trefoil (P)
 - Rosette forming turnip
 - Subterranean clover
- weed /cc dry weight, vigour, yields, petiole nutrients



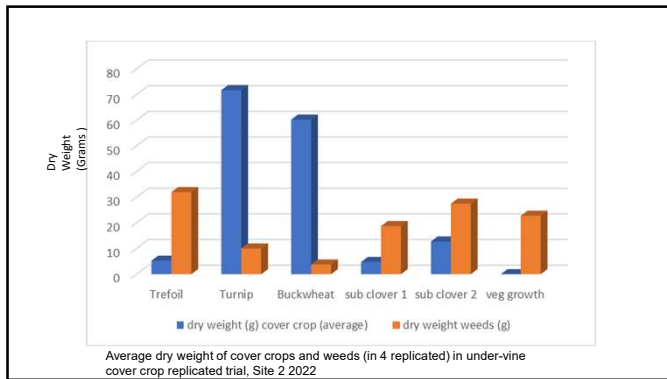
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Screening trials (1 panel)

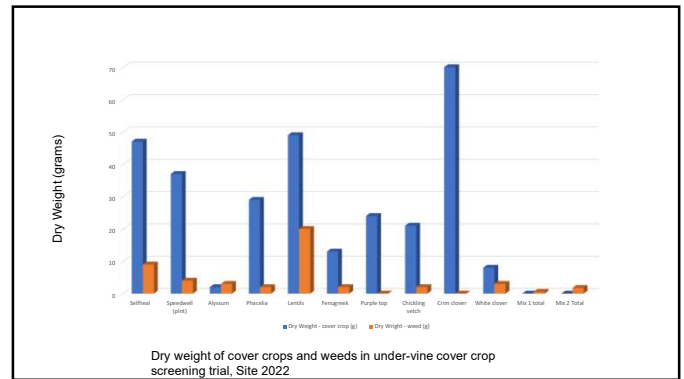
- Self heal and speedwell-Transplants
- Self heal seed
- Marjoram
- Purple top turnip
- Phacelia
- Alyssum (P)
- Fenugreek
- Lentils
- Chickling vetch
- Crimson clover (RS)
- White Clover (P)
- Mix 1
- Mix 2



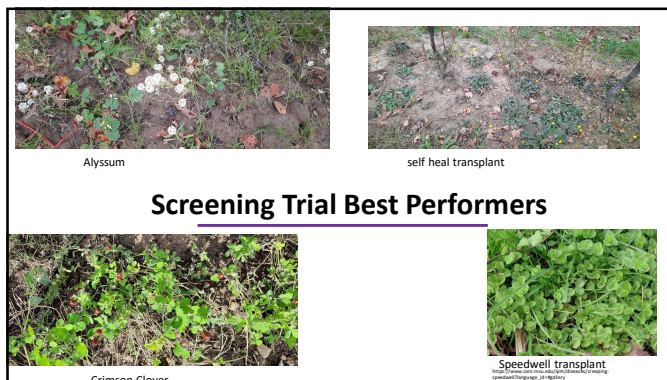
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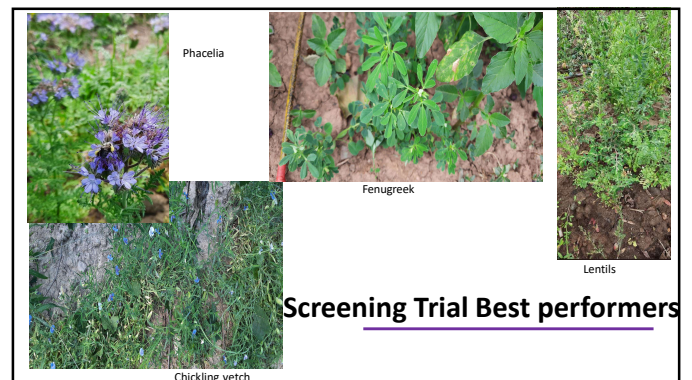
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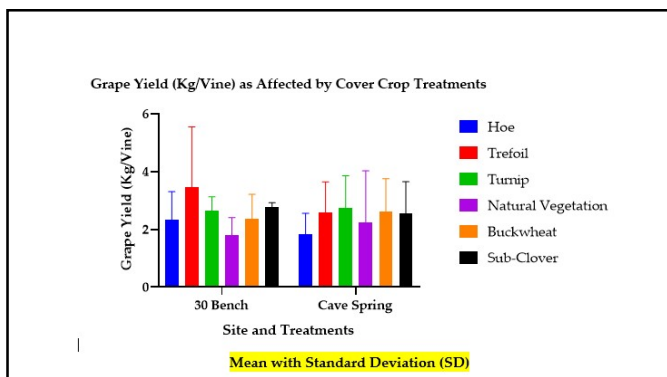
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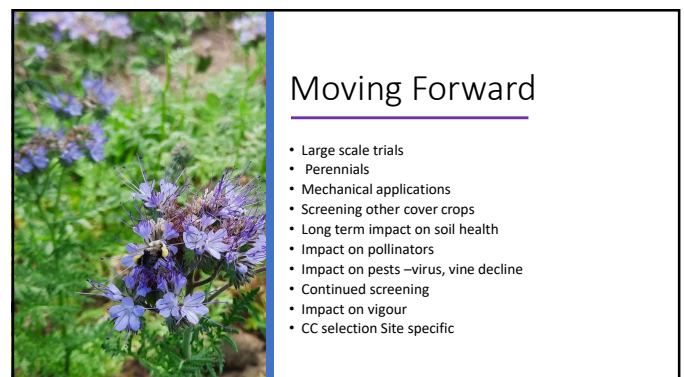
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