The SPUD Unit

Seed Potato Upgrading & Distribution or Superior Plant Upgrading & Distribution

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Becky Hughes, Manager SPUD Unit,
New Liskeard Agricultural Research Station

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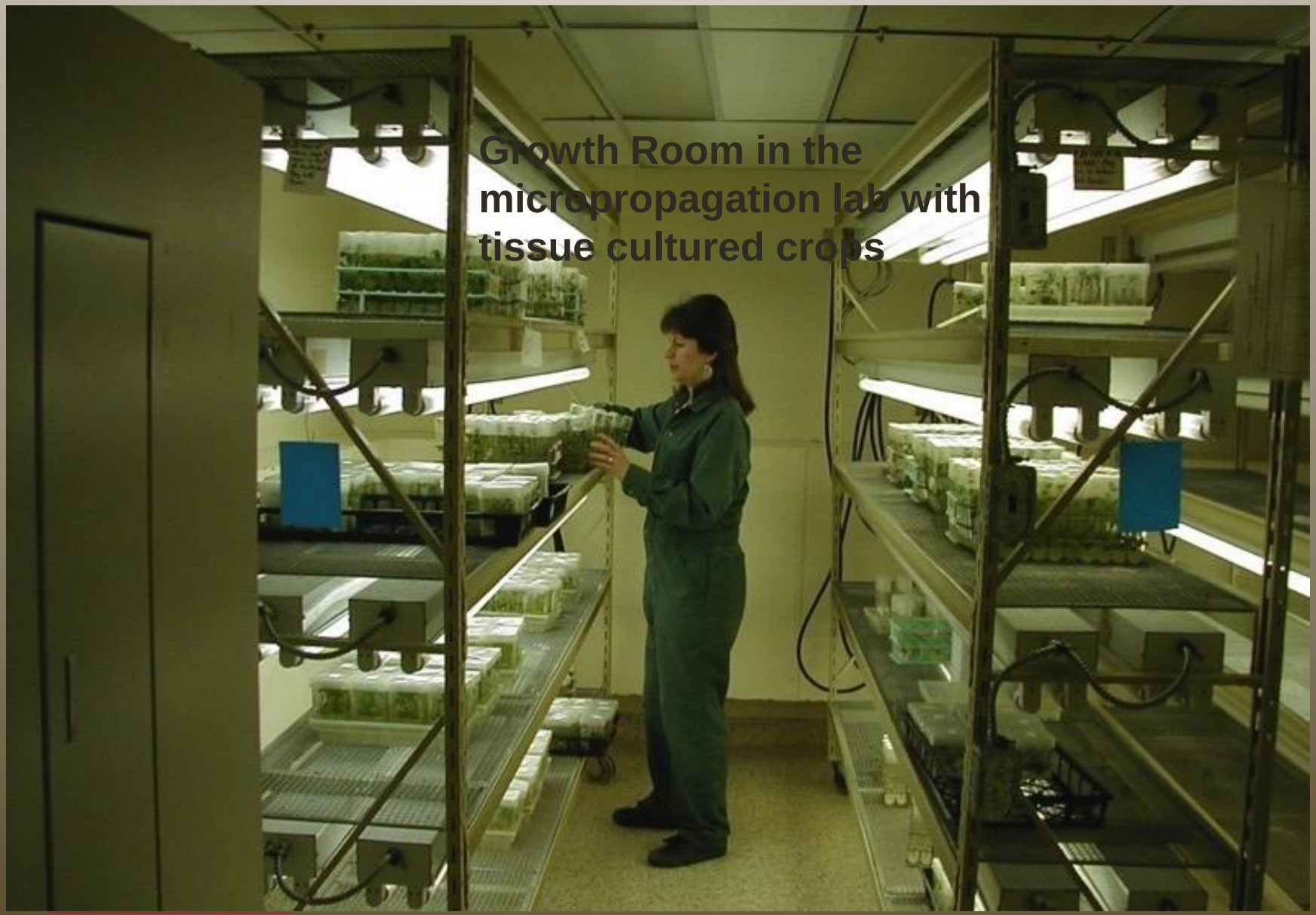

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Tissue cultured crops at the SPUD Unit currently include:

- Seed potatoes
- Strawberries
- Raspberries
- Asparagus
- Garlic

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Why use micropropagation?

- Rapid multiplication

  1 plant = 250,000 in 1 year

- Eradication of virus and other diseases

- Long-term storage of varieties

- Easy maintenance of disease-tested plants

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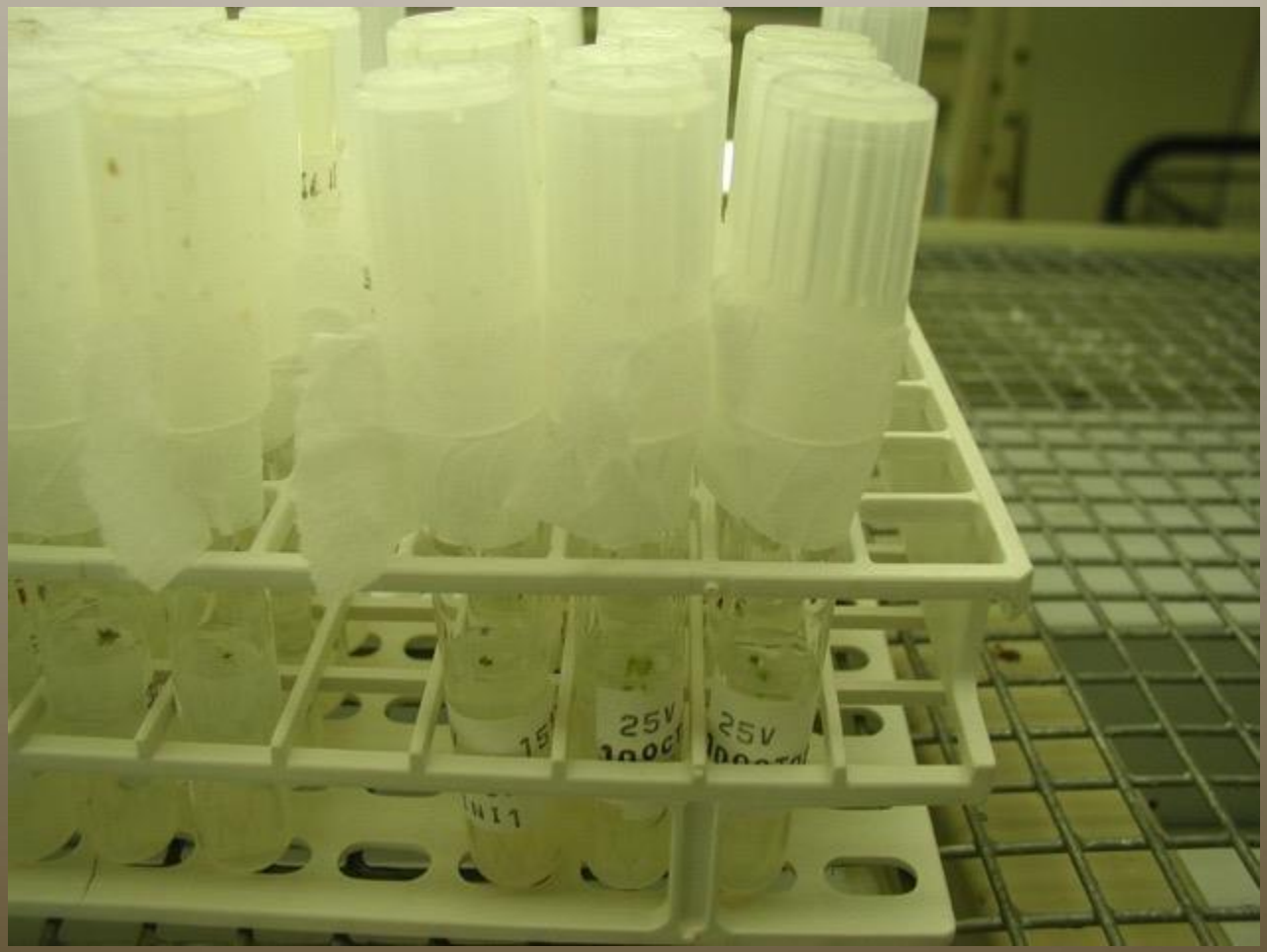
Plants are started from a microscopic growing point called a meristem



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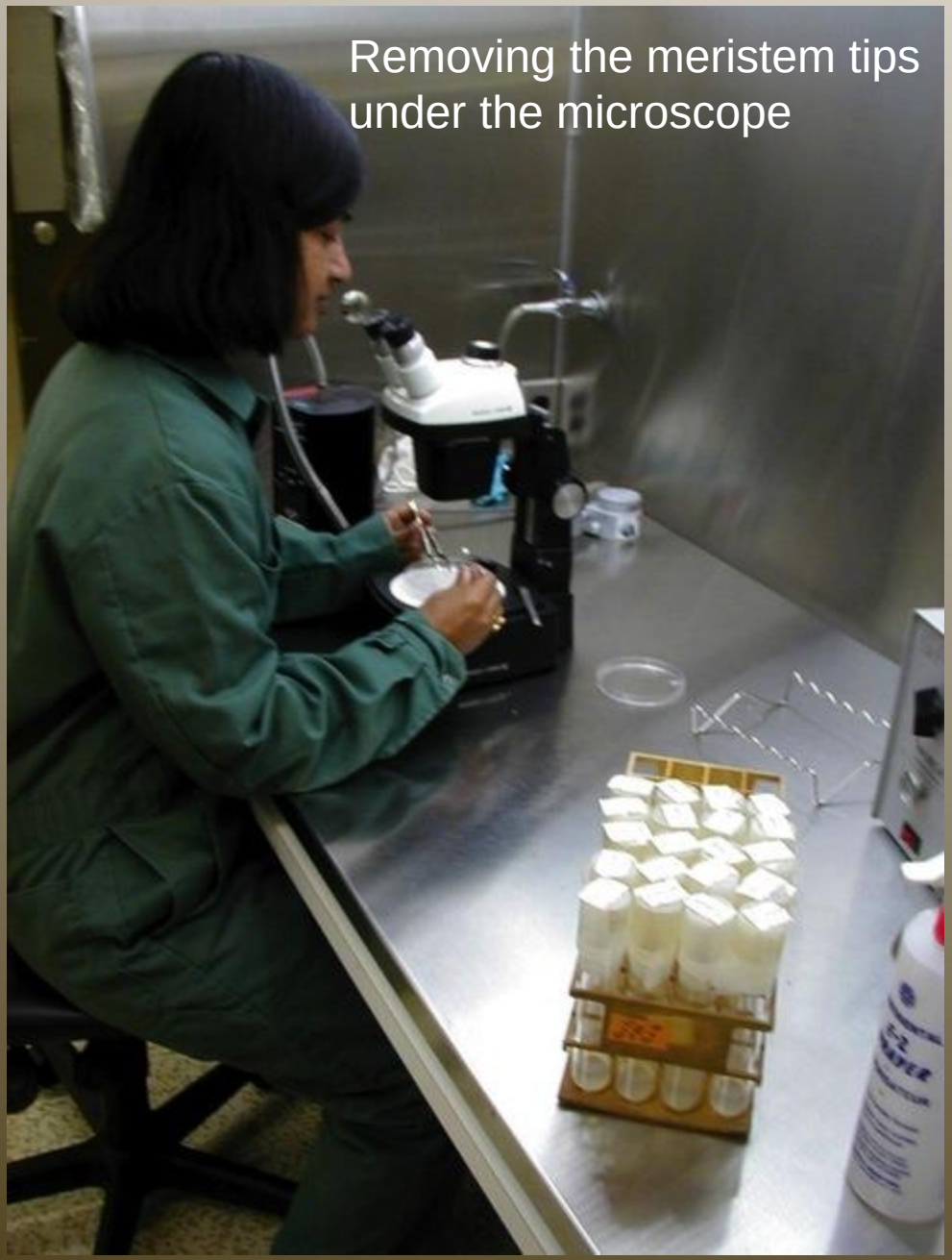
Removing the meristem tips under the microscope



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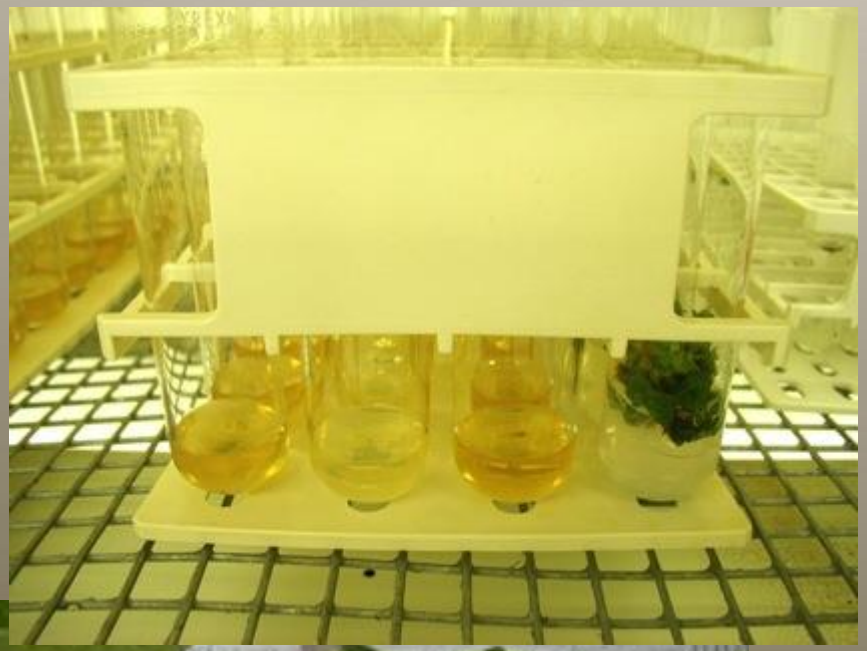
These are tested for diseases



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Plantlets that test negative for diseases are propagated every 4-8 weeks

One plant can produce 250,000 plants in a year

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Why is the SPUD Unit in New Liskeard?

The SPUD Unit is located in northern Ontario where it is isolated from commercial crops of vegetatively propagated plants and from the vectors that spread their diseases

The following outlines how we produce some of the crops:

Seed Potatoes

Tissue cultured potato plants are used to produce greenhouse-grown minitubers


Minituber crops produce the 1st generation of seed potatoes

Seed potatoes are multiplied in the field for up to 7 year before they are grown for consumption

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Ontario Berry Plant Propagation Program

Virus and DNA tested strawberry and raspberry plants are micropropagated and stored in vitro, then propagated when required

Plantlets from the lab are planted in plug trays and acclimated in a greenhouse prior to being shipped to nurseries

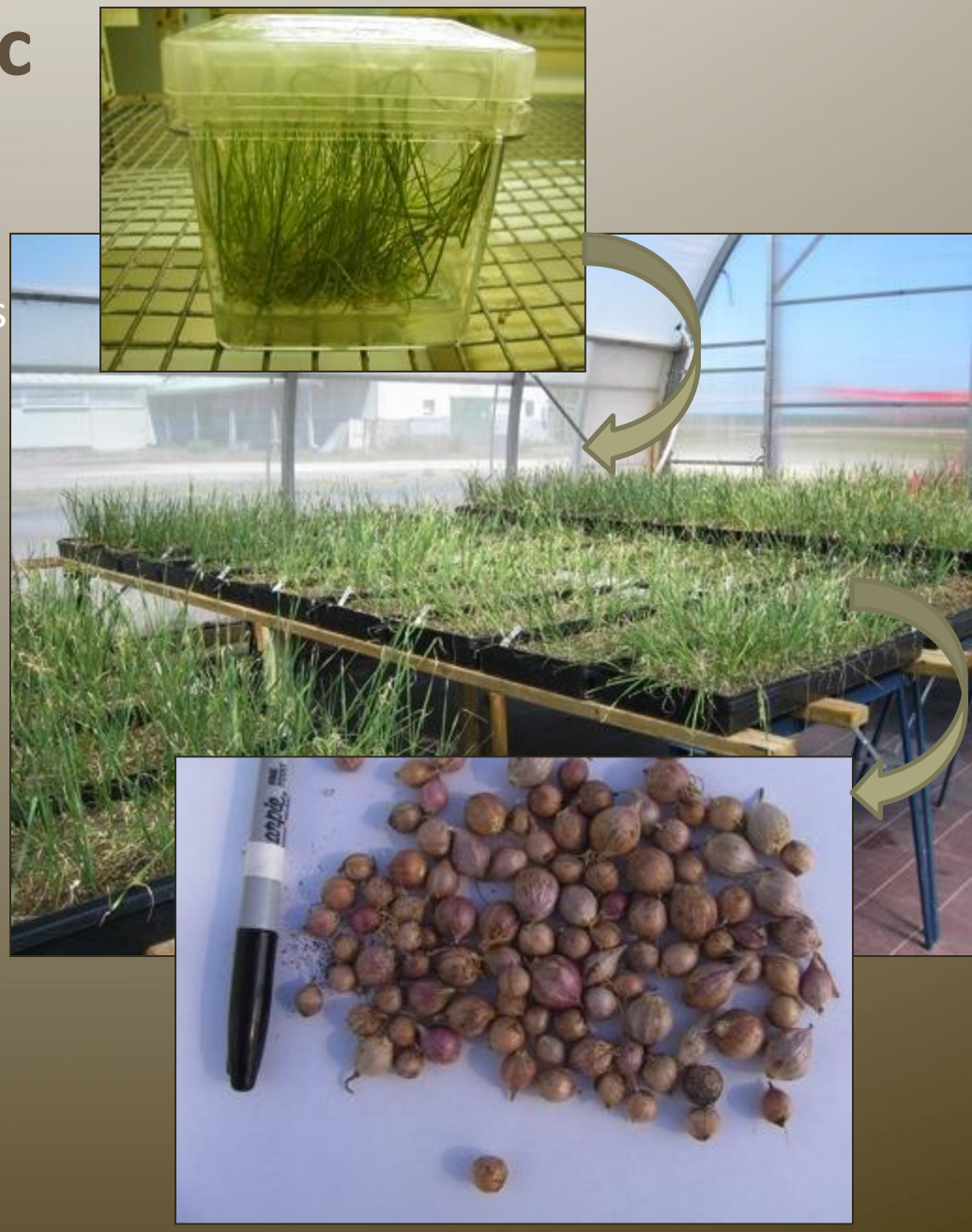
These plants are used by the nurseries to produce high quality berry plants for food production

Clean Seed Garlic

"Clean" seed garlic

Basics:

- **Micropropagation**
  - Clones established in culture by tissue or bulbils
  - Tested for pathogens
  - Plantlets established and multiplied
- **Stock plant maintenance**
  - Clones of stock plants grown in winter in greenhouse
- **Production**
  - Plantlets planted in screened greenhouse
  - Single clove bulbs harvested in August



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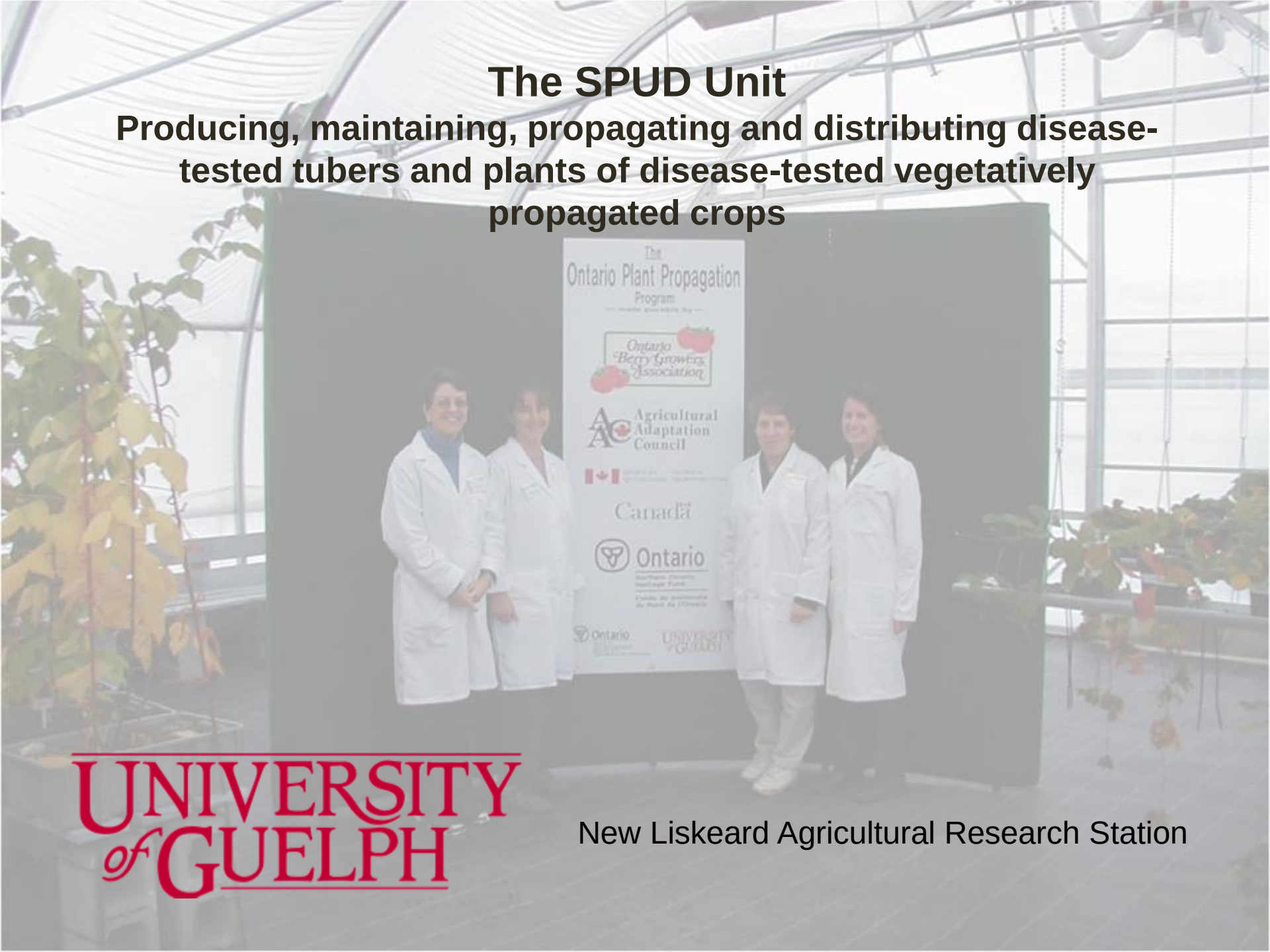
The SPUD Unit

Producing, maintaining, propagating and distributing disease-tested tubers and plants of disease-tested vegetatively propagated crops



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