



# MSU Agriculture Innovation Day

## Focus on Fruit and Vegetable Technologies

### Vineyard Mechanization

Increasing the use of mechanization is an ongoing theme across Michigan agriculture and for the grape industry.

There are many considerations for mechanization of traditionally manual tasks in vineyards, including equipment versus labor costs and the effects of mechanization on grape quality and vine health.

For successful vineyard mechanization start at the beginning: Vineyard posts, post height, wire, and vine trunks must be as straight and uniform as possible.

Use all available technology such as surveying transits, global positioning devices for accurate placement.

The ground should be as uniform as possible to avoid bumps.

Adapting older vines to mechanization:

Older vineyards can be adapted to mechanization over several years.

Trunks and knots that stick out into the row may need to be renewed.

Wires and posts may need to be adjusted or replaced.

Begin with a cost analysis:

Complete a cost analysis of mechanization versus the hand labor it replaces.

Consider the costs over a 3 to 5-year window to see if the machine purchase is justified.

Consult with as many knowledgeable people as you can before you make your decisions.

Expand **the benefits of mechanization:**

Benefits of mechanization are increased as additional components are added.

For example, mechanical vine combing makes mechanical hedging more efficient.

Equipment Summer Hedgers (sickle bar&rotary) Customized Pre Pruner

MSU / Gillison Comber Italian Leaf Puller Spedo Hiller / Cultivator



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