

**Project #1724 EVALUATION OF BIODEGRADABLE MULCHES  
In Fresh Market Sweet Corn**

---

**BRIEF  
DESCRIPTION**

Recently, biodegradable materials have been developed which have the potential to be used as agricultural mulches. These products are available in dark and clear films, and could be used on a range of vegetable crops. While photodegradation is reported to be involved in the breakdown of some mulches, suppliers claim that the end product is compostable. These products are not like the older photodegradable mulches, which simply came apart after exposure to the sun. They consist of starches or plastics with additives, and over time are supposed to completely degrade in the field, eliminating the need for pickup and disposal, which is estimated to be in the range of \$75—\$125/acre. While this material is used to a limited extent in the horticulture industry, new products are continually being made available, which need to be evaluated under Ontario production conditions.

**PROJECT  
OBJECTIVE**

- Compare the maturity, yield and quality of sweet corn and peppers grown on degradable mulches and standard plastic mulch
- Compare the soil heating effects of plastic mulches and biodegradable mulches
- Document the rate of breakdown of degradable mulches when used in sweet corn and pepper production systems at 2 locations.