Black swallow-wort invades Vermont’s fields and road-sides. The plants are easier to see in late summer when dying plants turn golden yellow.

The Problem

- Black swallow-wort (*Vincetoxicum nigrum*) can colonize two ways, wind borne seeds which can travel for miles or by rhizomes (underground stems) that sprout into new plant clumps and form extensive patches.
- These extensive patches of swallow-wort grow over other, often native, vegetation, blocking light and creating tangled thickets.
- Since this plant is a member of the milkweed family, Monarch butterflies often lay their eggs on swallow-wort seed pods. But swallow-wort is poisonous to monarchs and its larvae die either when they feed or by starving to death.
- Old field habitats of goldenrod and grasses can be replaced almost exclusively by swallow-wort, completely changing their physical structure, possibly impacting nesting birds in the process.
**Mechanical removal:**
Fruits can be manually removed and carried off-site to prevent seed dispersal, but this practice is time-consuming and must be continued until no more pods are produced and the plants reach the end of the growing season. It is more effective to remove the entire plant by mowing or pulling as it takes the plants a long time to recover and they often cannot do so in time to produce more seeds that season. Mowing is best for preventing seed production. However mowing does present the same rapid re-sprouting problem as manual pulling. Mowing frequently (one to two visits per season) just as the pods are beginning to form is ideal to prevent seed production.

Digging up root crowns is more effective than hand pulling alone. The stem tends to break easily above the root crown if pulled while the root crown itself is held tenaciously in place by the fibrous root system and can readily resprout if the stems are cut or broken. If the root crown is pulled up, it must be removed from the site and/or destroyed because broken root crowns tossed on the ground have been observed to re-grow.

**Chemical removal:**
Foliar spray treatments are shown to be superior to cut-stem treatments. Herbicide choice for foliar spray treatments will depend on site conditions. In degraded patches with little desirable vegetation, glyphosate may be preferred. At sites with desirable grasses that should be conserved, triclopyr ester would be the herbicide of choice. Follow up treatments will be required. In situations where spraying is impractical, cut-stem applications with follow up treatments should be effective. Repeated follow-up herbicide treatments are necessary for effective control. These herbicides should be applied when plants are actively growing, after flowering has begun. Only when the plants flower will they be large enough to receive enough spray on the exposed leaf surface to deliver a killing dose to the roots.

**Safe Chemical Application**
- **Develop an Integrated Plant Management approach.** Use chemical control as only ONE piece of your prevention and management strategy.
- **The label found on the herbicide container is the law.** It indicates the concentrations to use, what protective clothing to wear, how to apply the product, and what environmental and human health hazards are associated with the chemical.
- **Use aquatic formulations within 10 feet of water.** You need a permit to apply herbicides in wetlands. You cannot apply herbicides within 100 feet of a well-head. Contact VT DEC at 802-241-3761 for more information.
- **You need to be certified to apply herbicides on land that you do not own.**
- **Hire a contractor to manage large infestations.** A good contractor will have the knowledge to help create an effective management plan. For a list of certified contractors, contact the VT Department of Agriculture at 802-828-3482.

**PALE SWALLOW-WORT**
- Pale swallow-wort (Vincetoxicum rossicum) has not yet reached Vermont but it has been reported in all bordering states.
- This plant can be distinguished from black swallow-wort by its flowers which are lighter in color and have longer, thinner petals. Both species
- exhibit same habitat and reproductive methods.