

# Sklarczyk Seed Farms

## Johannesburg, Michigan



### Case Study

*Agricultural pollution prevention is defined as source reduction, reuse, or environmentally sound recycling and other prevention activities, including nonpoint source approaches.*

#### **Making the Land Better**

Sklarczyk Seed Farms is a progressive producer of seed potatoes in Michigan with innovation being the cornerstone of its environmental stewardship. In 1999, Don Sklarczyk and Sklarczyk Seed Farms received the Environmental Stewardship Award from the National Potato Council for participation in cooperative programs and grants to become a leader of environmental stewardship in agriculture production.

Crop rotation at Sklarczyk Seed Farms is designed to provide the greatest refuge for beneficial insects, such as aphid-eating ladybugs, which keep bad bug populations in check. Rotation also prevents aphid build up leading to a transfer of viruses. According to Michigan State University (MSU), convergent female ladybeetles may eat up to 75 aphids a day, while a larva may consume up to 350 aphids during its life span. Don also allows the land several years between plantings to eliminate any bacteria and reduce the need for chemical inputs by creating more time to build up ideal soil structures.

*"I guess it gets back to wanting to leave the land and leave the area in better condition than when you used it."*

—Don Sklarczyk



*Don Sklarczyk receiving the Environmental Stewardship Award from Janet Anderson*

#### **Environmental Stewardship Award**

Based on efforts in:

- Pesticide risk reduction.
- Integrated pest management (IPM).
- Biological control/transgenic methods (techniques used to express genes for improved yields).
- Water, soil, and habitat conservation.
- Other risk reduction strategies.

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## **Integrated Pest Management Practices**

In order to avoid persistent materials, Don prefers environmentally tolerated chemicals that are softer on the environment and contain the least amount of active ingredients.

Sklarczyk Seed Farms was part of a field scouting pilot program in Michigan (SP 53), an experimental input reduction method that reduces the use of chemicals and establishes the use of scouting.

In 1998 Sklarczyk Seed Farms was chosen as one of the first sites to test a weather station installed with a direct modem link to MSU. The station collects data for weather-sensitive pest management decisions. This information can be downloaded daily from MSU.

## **Pesticide Risk Reduction Strategy**

Don rotates from one type of chemical to another each season to limit chemical residue build up and allow the environment to break down pesticides. He worked with manufacturers to develop a wide-row sprayer rather than purchase a conventional sprayer.

### **Characteristics of Wide-Row Sprayer**

- Spot injection application.
- Allows more row coverage per pass.
- Less soil compaction.
- Spot injection allows operator to vary amount of chemicals applied across field.
- Whole field does not have to be sprayed; reduces amount of chemicals applied.

Don uses Global Positioning Satellite (GPS) field scouting to determine the pest and soil needs of his field – this breaks the fields down into two-acre grids, creating a data base of information about the soil's features. GPS is also used to map production in each grid. Data derived from GPS is used in conjunction with the spot injection sprayer when applying inputs, which also decreases pesticide usage. Despite the initial costs, long-term benefits of better till, higher quality product, and less runoff make GPS worth it.

## **Water, Soil, and Habitat Conservation Methods**

Don converted his irrigation to a low-pressure, center-pivot system. This, along with less water usage, reduced energy consumption by an estimated 33 percent.

### **Cooperative Land-Swapping Program**

- Don and many of his neighbors participate.
- Plants potatoes in their fields for one year while neighbors use his land for their crops.
- "Rotation network" allows each land owner to get better quality land without needing to create more farm land.

To prevent soil loading into the Sklarczyk Seed Farms' on-farm lake from runoff, Don participated in a Wildlife Habitat Incentive Program, a grant-funded program aimed at keeping the lake free of runoff.

Sklarczyk Seed Farms protects wellheads with anti-siphon valves on all wells to eliminate contamination from chemicals or runoff. In addition, all old wells have been capped and sealed to prevent pollution.

Don, in conjunction with Michigan State University Extension, developed a greenhouse runoff program. Drains and a system of catch basins capture runoff from the inside and outside of the greenhouses to reduce soil erosion. The program is part of a nutrient management plan detailing the effects of nutrients provided to crops and the fate of the left-over nutrients. This management plan helps provide procedures on how best to deal with the left-over nutrients.

### **Chemical Handling**

- Spill containment and bulk chemical storage building can contain spill during storage, handling, or mixing.
- Building houses sprayer, truck, and truck-mounted portable mix pad.
- Portable mix pad has own water supply, allowing rotation of mixing locations, and avoids crossing at wellhead locations and other water sources.

*Part of Michigan Groundwater Stewardship Program and a United States Department of Agriculture (USDA) grant initiated by Don Sklarczyk.*

To conserve the soil, the use of a plow has been nearly eliminated. Sklarczyk Seed Farms' operations have moved, to some degree, to no-till farming. Don leaves as much organic matter on the surface as possible to reduce wind and water erosion.

Located in the northern lower peninsula woods, Don's operation is surrounded by an economy thriving on wildlife and hunting, making habitat preservation a concern for him. He hired a forester to develop a forest management plan to plant trees and improve the wildlife habitat. During a period of land clearing in a small area, Don invested extra time to remove tree stumps and transplant them to areas to serve as wildlife habitat. In addition, he often plants cover crops to encourage wildlife and keeps buffers around wetlands to reduce pressure on nesting birds and other species.

### **Doing Their Part**

- Uses waste oil – generated by the farm – to heat facilities, turning a potential liability into an asset.
- Cleans up road-side litter from local highways every few months as member of the statewide Adopt-A-Highway program.

Don is quick to credit his partnerships with local, county, and statewide experts and agencies. Assistance from the Natural Resource Conservation Service, the Soil Conservation District, and Michigan State University Extension make it possible for Don's operation to be a model for other agricultural operations to follow.





*Planting potato crop with wide-space tractor*

This publication was developed in partnership with the Michigan Potato Industry Commission and the Michigan Department of Environmental Quality (MDEQ) to promote the Pollution Prevention Strategy and Implementation Plan for Michigan Agriculture.



For further information on Sklarczyk Seed Farms, contact the Michigan Potato Industry Commission at 517-669-8377 or email at [mipotato@aol.com](mailto:mipotato@aol.com).

For further information on the Pollution Prevention Strategy and Implementation Plan, contact the Environmental Assistance Division at 800-662-9278.

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