

Step by Step IPM Guide for Sweet Potato Growers Participating in the NRCS EQIP Pest Management (595) Practice

STEP ONE: PRE-PLANT INCORPORATED INSECTICIDE

A grower may apply a pre-plant soil incorporated insecticide to control over-wintered wireworm and early season flea beetle larvae. Pre-plant insecticides should be applied as close to the transplanting date as possible to maximize control.

(Growers may choose not to make this application based on field evaluations and/or past pest history.)

Make sure you **document all insecticide applications**. Any pre-plant soil incorporated applications must be recorded on NRCS EQIP Practice Guidelines record keeping form or equivalent.

The following insecticides are registered for pre-plant use:*

INSECTICIDE(trade name)	RATE	PRE-HARVEST INTERVAL
Chlorpyrifos (Lorsban 4E)	4 pints/acre	60 days
Bifenthrin† (Brigade 2EC)	Up to 19.2 oz/acre	21 days
Imidacloprid (Admire Pro 4.6)	4.4-10.5	125 days

†Bifenthrin applications can not exceed 0.5lbs ai/acre including PPI and soil barrier treatments.

STEP TWO: POST-PLANT MANAGEMENT OF SOIL INSECTS

One or two soil barrier treatments of bifenthrin† (3.2 to 9.6 oz/acre) may be applied to control wireworm, flea beetle, and rootworm larvae. Applications must be directed onto the soil and immediately incorporated into the bed with rolling cultivators. Soil barrier treatments should be applied between June 20 and July 7 for optimum wireworm control. Growers are not required to make soil barrier treatments.



Make sure you **document all insecticide applications** on NRCS EQIP Practice Guidelines record keeping form or equivalent.

Foliar insecticide applications targeting soil insects (either adults or larvae) are not permitted under this practice.

*This guide was developed by the Center for Agricultural Partnerships and North Carolina State University staff. These products and rates are specified in the N.C. Agricultural Chemicals Manual and should not be considered specific recommendations for your crop.

STEP THREE: POST-PLANT MANAGEMENT OF FOLIAGE-FEEDING CATERPILLARS

Scouting: Sweet potato fields must be scouted at least once per week beginning the first week of August and continuing until harvest (or until the threat of infestation has passed).

Here's how to scout:

- Place a one square meter shake cloth between two adjacent sweet potato rows.
- Shake the foliage on either side of the cloth vigorously over the cloth to dislodge any caterpillars present.
- Count and record the number of caterpillars on the shake cloth.
- The number of samples needed will vary according to field size (0-10 acres = 5 samples, 10-20 acres = 10 samples, >20 acres = 10 samples + 1 sample for every additional 5 acres). Sample sites should be selected randomly and should be representative of conditions in the field.
- Scouting results should be recorded on NRCS EQIP Practice Guidelines record keeping form or equivalent.



Spray application:

Action threshold:

Foliar insecticides should only be applied when:

- The average number of caterpillars in a field is more than 5 per sample, and there are more than 7 days before harvest OR
- The average number of caterpillars in a field is more than one per 2 samples, and there are 7 days or less until harvest

Do not apply insecticides if the average number of caterpillars per sample is less than the thresholds given above.

Reduced risk insecticides labeled and approved for foliar use for caterpillar pests in sweet potato:*

INSECTICIDE(trade name)	RATE	PRE-HARVEST INTERVAL
Bacillus thuringiensis† (DiPel) DF	1-2 pounds/acre	None
Indoxacarb (Avant)	3-6 oz/acre	7
Methoxyfenozide (Intrepid)	6-10 oz/acre	7
Novaluron (Rimon)	9-12 oz	14
Spinetoram (Radiant)	6-8 oz/acre	7
Spinosad (Spintor)	4.5-6 oz/acre	7

†Bacillus thuringiensis can be used for control of small caterpillars; do not use if caterpillars are large or infestations are heavy.

Make sure you **document all insecticide applications** on NRCS EQIP Practice Guidelines record keeping form or equivalent.

NRCS EQIP Practice Guidelines for the IPM Reduced Risk Strategy for Sweet Potatoes may be found at:
www.nc.nrcs.usda.gov/programs/EQIP/EQIPrules.html

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