

IMPACT

 University of Idaho
Cooperative
Extension System

University of Idaho, Nez Perce County, 1239 Idaho St., Lewiston, ID 83501 208-799-3096 Fax 208-799-3054

Nez Perce Reservation Citizens Compare Nitrogen Effect on Corn Disease

The Situation

Corn grown on the Nez Perce Reservation expresses high levels of a disease--"corn smut". This disease reduces corn yield and quality by invading stem, ear, and tassel tissue. Severity of this disease may be related to increasing soil-applied nitrogen rates.

Our Response

Cooperatively establish a study with the Nez Perce Tribal Food Bank to evaluate corn disease response to varying rates of soil-applied nitrogen fertilizer.

Our Goals

- ◆ Establish a corn garden and corn smut disease comparison study.
- ◆ Determine disease response to different rates of soil-applied nitrogen fertilizer.
- ◆ Provide educational tours of the garden and the disease study.

Achievements

- ◆ A corn garden and corn smut disease study was initiated and completed.
- ◆ A statistical evaluation indicated that increasing soil-applied nitrogen fertilizer also increased corn smut severity.
- ◆ The same evaluation provides significant evidence that lowering nitrogen rates decreases corn smut severity and corn yield.

- ◆ A fungicidal seed treatment and/or disease resistant corn varieties should be planted to protect against this disease.

Cooperators

Nez Perce Tribal Food Bank
UI/Nez Perce County Master Gardeners

For More Information

Larry J. Smith, Extension Educator
University of Idaho Cooperative Extension System
Nez Perce County
1239 Idaho Street
Lewiston, ID 83501
Phone: 208-799-3096
Fax: 208-799-3054
E-mail: nezperce@uidaho.edu

Georgia Higheagle Barros
USDA Commodity Foods
P.O. Box 365
Lapwai, ID 83540

Mary Busch
Horticulture Associate
University of Idaho Cooperative Extension System
Nez Perce County
1239 Idaho Street
Lewiston, ID 83501
Phone: 208-799-3096
Fax: 208-799-3054
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