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Lapwai Garden Yields Knowledge, Produce

A small sweet corn garden near the Nez Perce Tribe's headquarters at Lapwai provided a place for University of Idaho Cooperative Extension System master gardeners to demonstrate integrated pest management and yielded fresh produce for tribal members.

The quarter-acre garden yielded more than 800 pounds of sweet corn for distribution through the tribal food bank and through its senior program.

"People appreciate the fresh produce that comes from the garden," said Georgia Barros, who directs the USDA Food Distribution Program for the tribe. "When the corn is available, we provide it along with the other food that we have to distribute."

Photo by Bill Loftus

Georgia Barros, left, the Nez Perce Tribe's USDA Food Distribution Center director, and Mary Busch, Nez Perce County Extension master gardener coordinator, visit the Lapwai demonstration garden.

In the Senior Program kitchen, cook Geneva Towner noted that the sweet corn is popular with both those who receive meals and among elders who practice a traditional art for which the Nez Perces are famous. "We save the inner husks for the ladies who are weavers," she said.

A summer visit to the garden by youngsters enrolled in a Valley Boys and Girls Club program at Lapwai also planted the seed for a future strawberry patch the youths intend to plant next spring, said Larry Smith, Nez Perce County extension educator for crops and horticulture at Lewiston.

The garden's main role is demonstrating integrated pest management and gardening strategies, said Mary Busch, who coordinates the Nez Perce County Cooperative Extension Office master gardener program.

The county's volunteer master gardeners help tribal members plant and maintain the garden and harvest produce when it's ready. In addition to sweet corn, the garden included tomatoes, cantaloupes, watermelons, sunflowers, peppers, and flowers.

The four-year-old garden plot has successfully shown how drip irrigation and straw mulch can efficiently water the garden and keep weeds from overwhelming it. "We controlled the weeds by using the mulch and with a whole lot of good old hoeing and pulling," Busch said.

The gardeners showed that non-toxic insect control—applying mineral oil to the corn silk—could control corn ear borers, allowed beneficial insects to flock to the garden, and control other pests.

The master gardeners also demonstrated the use of cover crops to increase soil fertility and combat pests in the garden. The highest sweet corn yields were recorded when humus rapeseed was plowed down into the soil before the corn was planted in the spring.

The naturally produced glucosinolates released by the rapeseed plants as they decomposed acted as natural soil fumigants to help control the buildup of nematodes, fungi, and other pests, Smith said.

Fertilizer trials in the garden have also shown that corn thrives with additional side dressings of nitrogen fertilizer. The highest yield occurred with the maximum amount of nitrogen fertilizer—150 pounds per acre, Smith said. A drawback, however, emerged that more fertilizer also fed a higher incidence of common corn smut.

This year, a cool and wet spring provided weather conditions that increased the prevalence of corn smut and reduced corn yields.

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