



Chickpea Growers Back in Business

Field tests at the Evans farm near Genesee, Idaho, showed the new Sanford chickpea variety (left) to be resistant to *Ascochyta* blight, while Blanco Lechoso (right) was highly susceptible.

WALTER KAISER

Jim Evans noticed a yellowing, washtub-size patch in his chickpea crop one day in 1985. “When I looked closer, I saw chalky lesions on the leaves and stems,” Evans says.

His farm in Genesee, Idaho, was hit with one of the worst chickpea diseases—*Ascochyta* blight—and he was not alone. By 1987, growers across Washington and Idaho were losing their crops to the fungus.

“Blight infection can kill plants, reduce yield, and affect seed quality,” says Walter J. Kaiser, plant pathologist at the ARS Western Regional Plant Introduction Station in Pullman, Washington.

Evans’ yield dropped from 2,200 pounds of chickpeas per acre to less than 400. Many farmers quit trying to grow them. Acreage dropped from over 11,000 in 1987 to 4,000 in 1994.

Those who kept trying spent up to \$60 per acre on fungicides—often without results.

But this spring, Evans and other growers have a new tactic: three ARS chickpea varieties that resist the fungus.

Dwelley and Sanford are large-seeded, creamy-white kabuli chickpeas, the type often seen in salad bars. Myles is a smaller, darker, desi type, used to make a porridge called dahl and other popular Indian, Pakistani, and Ethiopian dishes.

As soon as the disease struck, Kaiser and ARS geneticist Fred J. Muehlbauer began developing the new chickpeas. All three varieties came through unscathed in testing and limited production last year. “We didn’t see a single lesion,” says Muehlbauer.

This year, there should be enough Dwelley and Sanford seed to meet grower demand. The first increase was grown last year in Arizona.

Northwest growers tried for a late crop with the seed—planting in June, instead of March or April—but a season-long drought caused low yields. Myles, which was just released last July, is still being increased.

Tim McGreevy of the USA Dry Pea and Lentil Council in Moscow, Idaho, is excited about the new varieties. “I expect we’ll see the

acreage come back up to at least 10,000 acres, just because of the resistance,” he says.

Chickpeas are rich in protein, complex carbohydrates, and fiber, while being low in fat and cholesterol. In many parts of the world, chickpeas serve as a staple, like wheat in America. Most of the U.S. crop—worth around \$2 million annually—is grown in the Pacific Northwest and California.—By **Kathryn Barry Stelljes**, ARS.

Walter J. Kaiser is in the USDA-ARS Plant Germplasm Introduction and Testing Unit, Johnson Hall, Room 59, Washington State University, Pullman, WA 99164-6402; phone (509) 335-1502, fax (509) 335-6654.

Frederick J. Muehlbauer is in the USDA-ARS Grain Legume Genetics and Physiology Research Unit, Johnson Hall, Room 303, Washington State University, Pullman, WA 99164-6434; phone (509) 335-9521, fax (509) 335-7692. ♦