

The Matt Moore Buckthorn Plots

PLANT PATHOLOGIST MATT MOORE HAD A GOOD IDEA back around 1950. He proposed planting a buckthorn nursery – hedges of buckthorn, the alternative host for crown rust – in St. Paul campus test plots. Moore theorized that oat breeding plots planted nearby would be exposed to just about all the crown rust virulence in the world, invaluable in ongoing development of varieties with durable resistance to current and anticipated crown rust races.

Moore met a firestorm of vociferous opposition, much from high sources, fed by fears that the plots would endanger Minnesota oat production. Moore persisted, finally prevailed, and established the plots in 1953.

Moore's buckthorn hedges separating multiple rows of oat plants enable maximum sexual recombination of the fungus, resulting in new pathogenic races or "varieties" of oat crown rust races. Oat breeders and plant pathologists from other states and countries began, and continue, to send selections representing potential varieties for evaluation in these plots. They have enabled development of many new oat varieties with resistance to multiple (both existing and potential) races of crown rust.

One of these varieties with solid generalized resistance to more than 54 races of crown rust was released by the Minnesota Agricultural Experiment Station in 1979. It was named Moore to honor Matt's significant contributions to developing crown rust resistance in oats.

An avid naturalist and a dedicated teacher, Matt Moore was a professor in the Department of Plant Pathology from 1932 until 1973, and principal instructor for introductory plant pathology courses from 1942 until his retirement in 1973. Until ill health stopped him prior to his death in 1985, he spent countless hours in his buckthorn nursery, observing the crown rust reactions of test plants throughout each growing season.

In a ceremony on July 2, 2008, during the International Oat Conference hosted by the University, 55 years from their inception, Moore's plots officially were named the *Matt Moore Buckthorn Plots* to commemorate the visionary, dedicated scientist who persisted to establish them.



Oat researchers from around the world attended the dedication of the Matt Moore Buckthorn Plots and explored nearby test plots during dedication, July 2, 2008. Plant scientists worldwide use the plots.