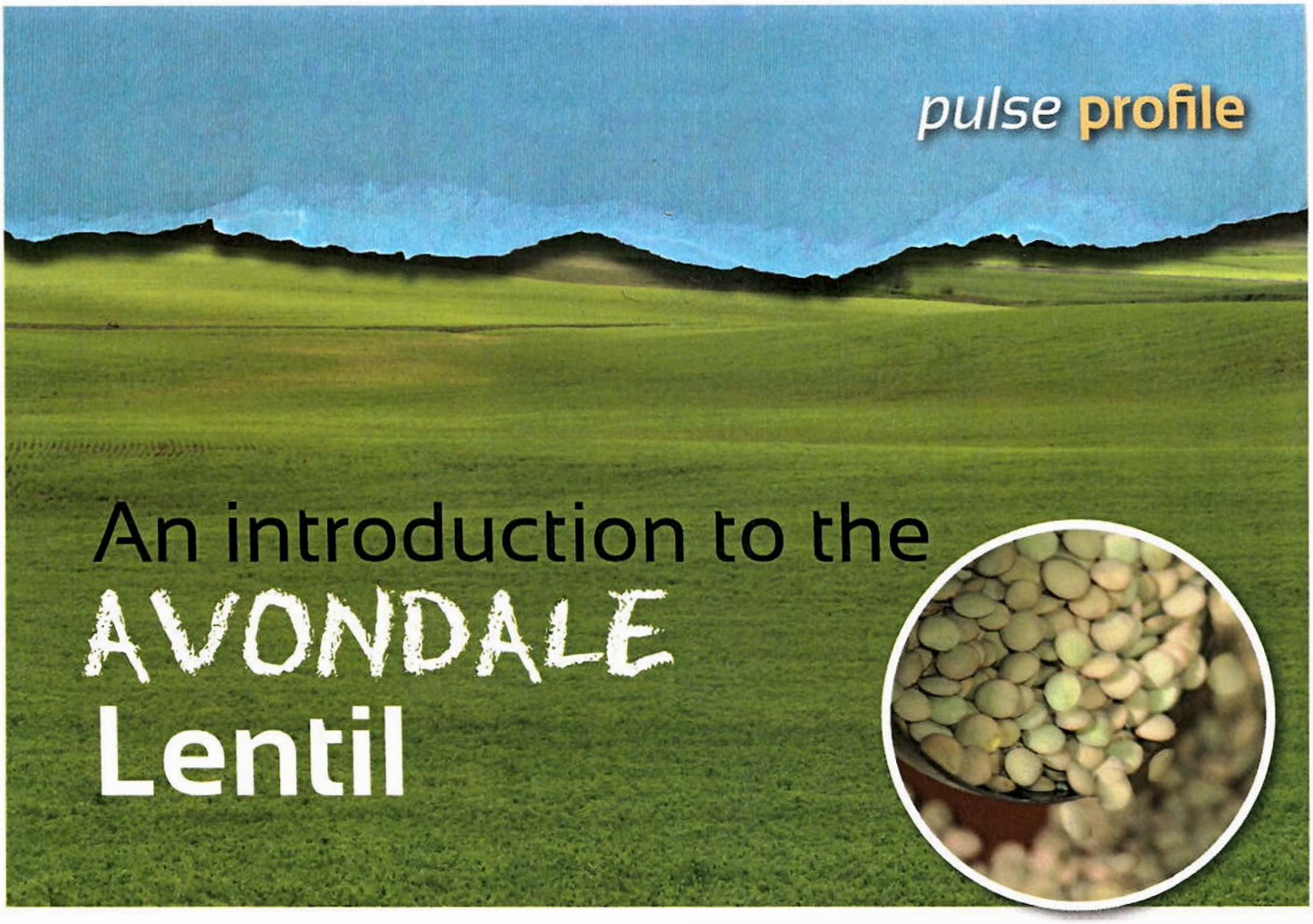

After years of developing a new variety of green lentil, Dr. Rebecca McGee, a plant geneticist at the USDA-ARS legume research lab at Washington State University has completed the certification process for the lentil formally known as "LC01602300R." The newly branded "Avondale" lentil, named after a small ghost town in the northeast corner of Montana, a region well suited to grow this particular lentil, may soon be available to purchase through your local crop improvement channels.

AVONDALE WAS INITIALLY CONCEIVED FOR THE SOLE PURPOSE OF IMPROVING THE DISEASE RESISTANCE OF THE RICHLEA LENTIL. RICHLEA IS A MEDIUM GREEN LENTIL THAT PROVIDES HIGH YIELDS BUT IS SUSCEPTIBLE TO ASCOCHYTA BLIGHT.

Process

Avondale was developed using a modified bulk-pedigree system, in which the breeder made a cross to combine the attributes of Richlea with a second green lentil released by ICARDA (International Center for Agricultural Research in the Dry Area); a smaller lentil named Pl 297754. The cross between these two parents was made in a greenhouse in 1998, and

Trial Data	Richland, MT 8 year Average Yield	Hettinger ND 4 Year Average Yield
Avondale	1512	2219
Richlea	1407	2011

Avondales have ***outproduced*** Richleas
an average of ***9.2%*** over 12 trial years

Cahill Seeds is an exclusive distributor
of the ***"new"*** Avondale Lentil

Cahill Seeds
669 HWY 5
Flaxville, MT 59222
406-783-5510

The Avondale Lentil

Specifications
- Height: 36cm; or 14 inches plus
- Maturity: 97 days
- Plant Height Index: 0.95
- Avg. Seeds/Pod: 2

Introduction
"Avondale" is a Medium Green (Richlea) market-class lentil with yellow cotyledons and a greenish seed coat.

Description
With a plant height index 0.95, it has excellent resistance to lodging (flattening).

The small ovate leaflets have an acuminate apex and obtuse base. The foliage is similar to other Richlea class lentils and it has white flowers. The mature pods are light tan, straight and have no constriction. The hundred seed weight is 5.64 g.

It consistently out-yields Merrit and Brewer by 10% and 14%, respectively. From 2005-2012, its average yield is 1237 lbs/acre compared to 1120 lbs/acre for Merrit and 1058 lbs/acre for Brewer.

It has high levels of partial resistance to Stemphylium blight (caused by *Stemphylium botryosum*).

subsequent generations were grown in the field from 1999 to 2000. Harvested seed from each generation was cleaned and sized using a floor-model clipper with screens sized to remove foreign material and inferior seed. During the winter of 2000-2001, single seeds from the previous generation were grown again in a greenhouse and seed from each plant was harvested separately and then grown in the field in Pullman, Washington in 2001. The best plot was chosen in the field based on maturity, height, and lodging tolerance and was assigned selection number LC01602300R.

LC01602300R was grown in a non-replicated observation trial in 2002 at the Washington State University Spillman Research Farm. Between the years of 2003 and 2013 the breeding line was evaluated in replicated yield trials in both Washington and Idaho to evaluate performance, yield and disease resistance. The breeding line was also grown in yield trials in Montana from 2008-2013 and in North Dakota from 2006-2012 (excluding 2007). LC01602300R performed well in all locations and was particularly suited for the Northern Tier, yielding well and standing strong.

Status

Breeder seed was made in 2011, increased by the Washington State Crop Improvement Association (WSCIA) at the WSU Irrigated Research Station in 2012; and at the USDA Plant Materials Farm in Pullman in 2013 and sent to New Zealand for a counter-season increase in 2013-2014. There is an estimated 6,000 lbs. of breeder seed available from the New Zealand increase. Foundation and registered seed is currently being made in Washington and Montana, and a PVP application (Title V) has been submitted.