

**University of Wyoming**  
**Powell Research & Extension Center**  
**College of Agriculture**

## **CURRENT PROJECTS 2009**

**Abdel Mesbah**

*Senior Research Scientist/Director*

**Mike Killen**

*Farm Manager*

**Randall Violet**

*Research Associate*

**Brad May**

*Assistant Farm Manager*

**Calvin Odero**

*Post Doctorate*

**Keith Schaefer**

*Assistant Farm Manager*

**Kathy Parsons**

*Office Associate*



**747 Road 9 Powell, WY 82435**

**Phone: (307) 754-2223**

## **CURRENT PROJECTS – 2009**

**POWELL RESEARCH AND EXTENSION CENTER  
WYOMING AGRICULTURAL EXPERIMENT STATION  
COLLEGE OF AGRICULTURE  
UNIVERSITY OF WYOMING**

747 Road 9  
Powell, WY 82435-9135  
phone: 307-754-2223  
fax: 307-754-5605

The University of Wyoming Research and Extension Center at Powell is located one mile north of Powell, WY on Highway 295 (Latitude 44.45, Longitude 108.46) at an elevation of 4,370 ft. Average annual precipitation is 6.56 inches. May and June are the only two months that exceed 1 inch average precipitation. Two hundred of the 216 acres at the UW Research and Extension Center at Powell are irrigated crop land. Research foci at the station include core and alternative crop weed control strategies, crop variety performance testing, soil fertility research, crop variety response to herbicide treatments, and legume/grass seed yield/ adaptability trials. Research projects include dry beans, sugar beets, small grains (barley, wheat, and oats), and both seed and forage production from native plants for reclamation and improved forage species including alfalfa, cool and warm season perennial grasses, native forbs and legumes. The primary area served by the UW Research and Extension Center at Powell includes Fremont, Hot Springs, Washakie, Big Horn, and Park counties in northwest Wyoming. The center participates in numerous regional research and education projects (conferences, meetings, field days, weed tours, etc.). The Wyoming Hay & Commodity Hotline website is also coordinated at the Powell Center in cooperation with Scott Keith (Wyoming Business Council) and Randall Anderson (CES, Laramie). The Powell R&E Center also coordinates seven county and state fair hay shows each year.

For more information about the listed projects contact

Abdel Mesbah, Director: [sabah@uwyo.edu](mailto:sabah@uwyo.edu)

Mike Killen, Farm Manager: [mkillen@uwyo.edu](mailto:mkillen@uwyo.edu)

Randall Violet, Research Associate: [rviolet@uwyo.edu](mailto:rviolet@uwyo.edu)

## SOIL FERTILITY PROJECTS

- \* Nitrogen source and placement in furrow irrigated sugarbeets. Jay Norton, Mike Killen, and Sandra Frost. (PREC)
- \* Nitrogen source and rate in furrow irrigated sugarbeets. Jay Norton, Mike Killen, and Sandra Frost. (PREC)
- \* Bio-Stimulant/Harvest Energy in sugarbeets. Abdel Mesbah, Randall Violett, and Calvin Odero. (PREC)
- \* Bio-Stimulant/Harvest Energy in dry bean. Abdel Mesbah, Randall Violett, and Calvin Odero. (PREC)
- \* Bio-Stimulant/Harvest Energy in barley. Abdel Mesbah, Randall Violett, and Calvin Odero. (PREC)
- \* Foliar application of Nitamin in barley. Abdel Mesbah, Randall Violett, and Calvin Odero. (PREC)
- \* Foliar application of Nitamin in sugarbeet. Abdel Mesbah, Randall Violett, and Calvin Odero. (PREC)
- \* N-fusion fertilizer in corn. Abdel Mesbah, Randall Violett, and Calvin Odero. (PREC)
- \* Phosphorus rates in Sainfoin. Anowarul Iaslam, Mike Killen, and Randall Violett. (PREC)

## VARIETY PERFORMANCE: *Comparative Yield and Adaptability*

- \* Barley variety evaluation trials and Western Spring Regional Nursery. Mike Killen and Randall Violett. (PREC)
- \* Oat variety evaluation trials and Northwestern States Oat Nursery. Mike Killen and Randall Violett. (PREC)
- \* Wheat variety evaluation trials and Uniform Regional Hard Red Spring Wheat Nursery. Mike Killen and Randall Violett. (PREC)
- \* Busch Ag Resources variety strip trial. Mike Killen, Brad May, Keith Schaefer, and Richard Red. (PREC)
- \* Shoshone Sainfoin foundation seed increase. Mike Killen and Mike Moore. (PREC)
- \* Cooperative dry edible bean nursery. Mike Moore, Randall Violett and Mike Killen. (PREC)
- \* ADM dry edible bean variety trial. Abdel Mesbah, Randall Violett, and Calvin Odero. (PREC)
- \* Coors Brewing Co. Experimental barley variety evaluation. Mike Killen, Randall Violett, Bob Burnick, and Jim Hettinger. (PREC)
- \* Coors Variety Strip trial and pilot malt test. Mike Killen, Brad May, Keith Schaefer, Bob Burnick and Jim Hettinger. (PREC)
- \* Barley variety trial. Mike Killen and Jerry Nachtman. (SAREC, Lingle)
- \* Oat variety trial. Mike Killen and Jerry Nachtman. (SAREC, Lingle)
- \* Wheat variety trial. Mike Killen and Jerry Nachtman. (SAREC, Lingle)
- \* Barley variety trial. Mike Killen and Byron Nelson. (Sheridan R&EC)
- \* Oat variety trial. Mike Killen and Byron Nelson. (Sheridan R&EC)

- \* Wheat variety trial. Mike Killen and Byron Nelson. (Sheridan R&EC)
- \* Durum wheat variety trial at Powell R&E. Mike Killen and Randall Violett. (PREC)
- \* Establishment and management of perennial ryegrass, tall Fescue and Kentucky bluegrass for seed production. Mike Killen. (PREC)
- \* Garlic Production Trial. Joyce Johnston and Mike Killen. (PREC)
- \* Roundup Ready silage corn hybrid variety trial. Mike Killen, Sandra Frost, and Randall Violett. (PREC)
- \* Roundup Ready grain corn hybrid variety trial. Mike Killen, Sandra Frost, and Randall Violett. (PREC)
- \* Confection sunflower seed production variety trial. Randall Violett and Abdel Mesbah. (Powell R&EC)
- \* Flax seed production variety trial. Randall Violett and Abdel Mesbah. (PREC)
- \* Roundup Ready sugarbeet variety trial under sprinkler irrigation. Abdel Mesbah, Randall Violett, and Cal Jones. (Wyoming Sugar, Worland)
- \* Roundup Ready sugarbeet variety trial under furrow irrigation. Abdel Mesbah, Randall Violett, and Cal Jones. (Wyoming Sugar, Worland)
- \* Barley Variety Response to three different nitrogen rates and three irrigation strategies. Abdel Mesbah, Randall Violett, Mike Killen and Blake Cooper. (PREC)

**CONSERVATION AND SUSTAINABILITY: *Specialty Seed Crops and Adaptability***

- \* Prairie cone flower seed production. Tom Whitson, Mike Killen, and Randall Violett. (PREC)
- \* Big bluestem and Indian grass seed production/adaptability trial. Alan Gray, Randall Violett, and Mike Killen. (PREC)
- \* Cool season perennial grass seed production/adaptability trial. Alan Gray, Randall Violett, and Mike Killen. (PREC)
- \* Warm season perennial grass seed production variety trial. Alan Gray, Randall Violett, and Mike Killen. (PREC)
- \* Cool season grass forage production/adaptability trial (2006). Mike Killen, Randall Violett, Susan Winslow, and Mark Majerous. (PREC)
- \* Green needle grass seed production. Tom Whitson and Mike Killen. (PREC)
- \* Black eyed Susan seed production. Tom Whitson and Mike Killen. (PREC)
- \* Spring canola production for biodiesel production. Steve Miller and Mike Killen. (PREC)

**FORAGES: *Yield, Quality, Adaptability, and Alternative Cultural Practices***

- \* Native forage production demonstration with alternate legume rows. Mike Killen, Randall Violett, Susan Winslow and Roger Hybner. (PREC)
- \* Warm season perennial grass biomass production variety trial (2003-Planting). Alan Gray, Randall Violett and Mike Killen. (PREC)

- \* Warm season perennial grass forage quality variety trial (1999-Planting). Alan Gray, Randall Violet and Mike Killen. (PREC)
- \* Sainfoin variety yield trial (2007-Planting). Randall Violet and Mike Killen. (PREC)
- \* Alfalfa variety yield trial (2007-Planting). Randall Violet and Mike Killen. (PREC)
- \* Alfalfa variety yield trial (2007-Planting). Randall Violet and Mike Killen. (SAREC, Lingle)
- \* Tall Fescue variety trial for seed and forage productions. Anowarul Islam and Randall Violet. (PREC)
- \* Tall Fescue variety trial for seed and forage productions. Anowarul Islam and Randall Violet. (Rick Stroh Farm)

## **WEED MANAGEMENT PROJECTS**

- \* Foxtail barley management in thickspike wheatgrass. Randall Violet, Abdel Mesbah, and Calvin Odero. (Lee Craig Farm)
- \* Wolverine for wild oat control in spring wheat. Abdel Mesbah, Randall Violet, and Calvin Odero. (PREC)
- \* Wolverine for broadleaf weed control in spring wheat. Abdel Mesbah, Randall Violet, and Calvin Odero. (PREC)
- \* Barley tolerance to Wolverine. Abdel Mesbah, Randall Violet, and Calvin Odero. (PREC)
- \* Huskie herbicide for weed control in barley. Abdel Mesbah, Randall Violet and Calvin Odero. (PREC)
- \* Orion and Axial herbicides for weed control in barley. Abdel Mesbah, Randall Violet, and Calvin Odero. (PREC)
- \* Triallate formulations for weed control in barley. Abdel Mesbah, Randall Violet, and Calvin Odero. (PREC)
- \* Application timing and tank mix partners with glyphosate in Roundup Ready beets. Abdel Mesbah, Randall Violet, and Calvin Odero. (PREC)
- \* Effect of weed removal timing on Roundup Ready beet yield. Abdel Mesbah, Randall Violet, and Calvin Odero. (PREC)
- \* Glyphosate in combination with several adjuvants for weed control in RR-Beets. Abdel Mesbah, Randall Violet and Calvin Odero. (PREC)
- \* Glyphosate and layby herbicide treatments in Roundup Ready sugarbeets. Abdel Mesbah, Randall Violet, and Calvin Odero. (PREC)
- \* Tank mixing Roundup with insecticides and fungicides in Roundup Ready beets. Abdel Mesbah, Randall Violet, and Calvin Odero. (PREC)
- \* Generic glyphosate for weed control in Roundup Ready beets. Abdel Mesbah, Randall Violet, and Calvin Odero. (PREC)
- \* Wild buckwheat control in Roundup Ready beets. Abdel Mesbah, Randall Violet, and Calvin Odero. (PREC)
- \* Milk weed control in Roundup Ready beets. Abdel Mesbah, Randall Violet, and Calvin Odero. (Scott Gormley Farm)

- \* Reduced rates of Nortron in Roundup Ready beets. Andrew Kniss, Abdel Mesbah, Randall Violet, and Calvin Odero. (PREC)
- \* Volunteer Roundup Ready corn control in Roundup Ready beets. Abdel Mesbah, Andrew Kniss, Randall Violet, and Calvin Odero. (PREC)
- \* Interaction of weed management and nitrogen use and availability in Roundup Ready beets. Andrew Kniss, Abdel Mesbah, Jay Norton, Randall Violet, and Calvin Odero. (PREC)
- \* Weed control in small burnett for seed production. Sandra Frost, Abdel Mesbah, and Randall Violet. (Richard Rice Farm)
- \* Tolerance of cool season grass to MAT 28. Abdel Mesbah, Randall Violet, and Calvin Odero. (PREC)
- \* Sharpen for weed control in fallow. Abdel Mesbah, Randall Violet, and Calvin Odero. (PREC)
- \* Weed control in perennial rye grass. Abdel Mesbah, Randall Violet, and Calvin Odero. (PREC)

## **COMMODITY PROMOTION & OUTREACH PROGRAMS**

- \* Wyoming Hay Hotline – Commodity Listing Service. Kathy Parsons, Randy Anderson and Scott Keith.
- \* Hay show – Park County. Randall Violet, Sandra Frost, Kathy Parsons, and Tim Latham.
- \* Hay show – Hot Springs County. Kathy Parsons and Barton Stam.
- \* Hay show – Fremont County. Kathy Parsons, Alex Malcom and Ron Cunningham.
- \* Hay show – Natrona County. Kathy Parsons and Scott Keith.
- \* Hay show – Laramie County. Kathy Parsons and Phil Rosenlund.
- \* Hay show – State Fair. Kathy Parsons, Randall Violet, Frank Henderson, and Scott Keith.