

# NDSU Extension Service

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**Mission:** Extension provides science-based education that improves the economic, health and community conditions for North Dakotans.

We achieve that outcome through transformational education, which uses a combination of four educational strategies illustrated below.

This matrix has two dimensions, with process on one axis and content on the other.

The **low process/low content** cell is identified as “information” or “service” and represents straightforward, nonproblem solving such as soil testing, insect identification, coordinating meetings or conducting 4-H achievement days.

The **high process/low content** cell is called “facilitation” and represents an important function, especially in contentious group settings. Extension staff provide facilitation, which is highly valued in many projects.

The **high content/low process** cell is identified as “content transmission” or “technology transfer.” Its dominant function is providing answers to people’s problems.

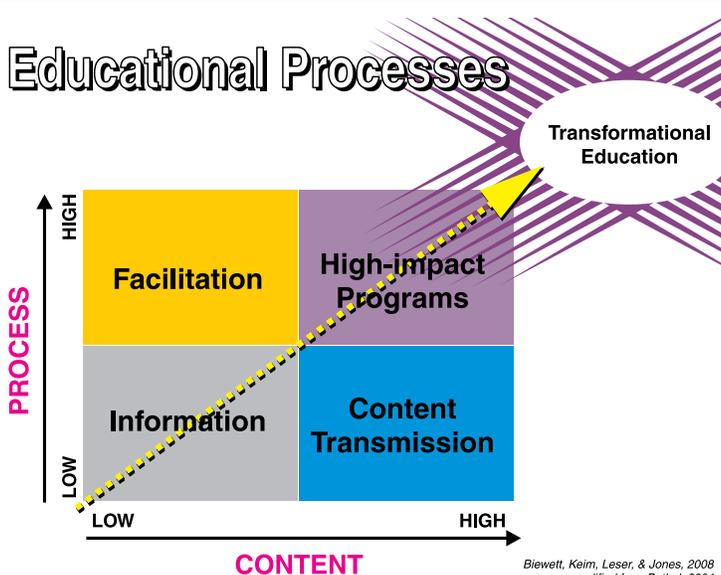
Finally, the **high content/high process** cell called “high-impact programs” is the most powerful approach to transforming people as they struggle with solving problems. This is when Extension provides its strongest programs and impacts. This educational model is **foundational** to our mission.

**Success:** Extension is highly successful and valued because it anticipates and responds to state and local needs. Our Extension specialists use their technical expertise to develop recommendations and programs based on current and emerging issues. Our Extension agents extend the reach of our specialists across the state and deliver and respond to local demands with timely, relevant programs.

An important part of Extension’s success is partnering with federal and state agencies, state commodity groups and associations, and local entities to deliver programs efficiently and effectively. Extension collaborates but does not duplicate.

**Impacts:** NDSU Extension improves the productivity and profitability of farms and ranches and the success of youth (4-H), families and communities through the local knowledge, relationships and programs of Extension agents with the support and expertise of specialists. Examples of Extension impacts include:

- **Drought:** Extension provided significant assistance to ranchers across the state such as best practices and options for range management and alternate feedstuffs, information and testing for water and feed toxicity, and calf weaning and herd culling options. In addition, Extension agent observations were vital in keeping the U.S. Drought Monitor reflective of current conditions.
- **Annie’s Project:** This program empowered 106 farm women in 2017 to be better business partners through a series of educational sessions. Evaluations revealed that more than 90 percent of the participants rated the program as being a very empowering experience that gave them the courage and knowledge to become more actively involved in the business side of their ag operation.
- **4-H:** North Dakota youth gain effective communication skills, which is perhaps the most important skill strong leaders possess, through 4-H communication arts contests. As a result, 38 percent of preteen participants agreed and 38 percent strongly agreed that they have the confidence to speak in front of groups.



# Reimagining NDSU Extension's Web Presence

SBARE's Extension Review Committee Report recommended that Extension optimize the use of technology and target younger age demographics to enhance the efficiency and effectiveness of delivery methods. To do that, Extension needs a new web strategy and reimagining of content options to meet future opportunities and ever-changing user needs.

## Needs

A new web strategy and reimagining of content will allow Extension to:

- Optimize content for smartphones and tablets and emerging technologies such as voice-assisted search and augmented reality, especially to reach younger audiences
- Optimize navigation and search features
- Reduce duplicate content for cleaner search results
- Add more graphics, including social media use
- Automatically flag content that may become out of date
- Incorporate more interactive applications
- Feature more interactive educational modules
- Explore incorporation of customer relationship management software options

## Strategy

This one-time funding request will add temporary support to overhaul and reimagine NDSU Extension Service's online presence.

- Content in the information sector of the matrix will be organized to help audiences find answers on their own.
- Specialists and agents will utilize the web for more interactive products to support transformational education.



# NDSU Extension Precision Ag: Mobile Pesticide Application Lab (M-PAL)

## Situation

Advances in precision pesticide application technology have outpaced current educational programs. Several recent and emerging issues warrant a higher level of management that is supported through advanced training.

- Advances in precision application equipment and software require training to optimize the performance and economic returns to the technology.
- Dicamba applications to dicamba-tolerant soybeans will require special application procedures to avoid off-site dicamba movement.
- Palmer amaranth and other herbicide-resistant weeds require a high level of knowledge of herbicide technologies and management.

## Stakeholder Support

- ND Corn Council
- ND Soybean Council
- ND Wheat Commission
- Sugar Beet Industry
  - Red River Valley Sugarbeet Growers Association
  - Sugarbeet Research and Education Board
- ND Grain Growers Association

## Need

Critical need for transformational education on precision application of pesticides

## Specific Areas

- spray tips
- inversions
- molecule volatility
- tank clean-out
- spray adjuvants
- droplet pattern
- tank mixes
- water
  - pressure
  - rate
  - temperature
- patterns of coverage
- resistant weeds
- band spraying

## Proposed Response

- NDSU Extension M-PAL
  - Self-contained, program specific
  - Dedicated specialist/coordinator
  - Focus on transformational education
- Modeled on a proven educational programs
  - UNL PAT Laboratory
  - NDSU BBQ Boot Camp
- Onsite training
  - Logistical efficiency
  - Self sufficient
  - Qualified trainer(s)



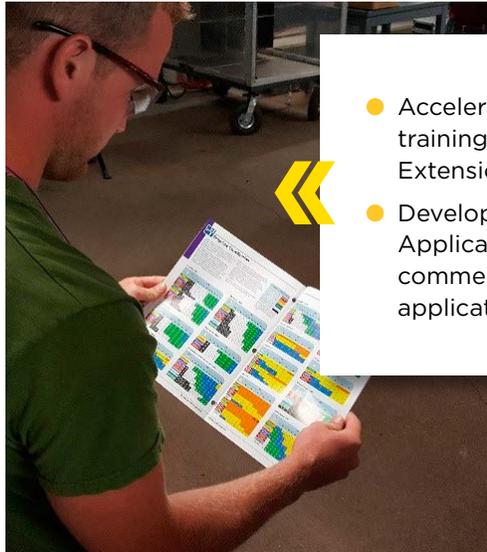
# Mobile Pesticide Application Lab (M-PAL)



- Augment current training programs with live-action demonstrations



- New just-in-time focused and timely programming
- Build on sense of community



- Accelerated, advanced training for NDSU Extension personnel
- Develop Master Applicator program for commercial and private applicators

# Mobile Pesticide Application Lab (M-PAL)

- New platform for delivery of research and resource distribution



- Unbiased and research-based information in a hands-on environment
- Use of real-time, off-the-shelf technology

- Sustained collaborative initiative among key stakeholders and NDSU Extension
- Enhanced relationship with N.D. Dept. of Agriculture, our regulatory partners
- Desired outcomes
  - Precision application of pesticides
  - Higher compliance rates
  - Lower complaints
  - Positive message of protecting our environment and food supply



# Next-Gen ND Leaders and Volunteers

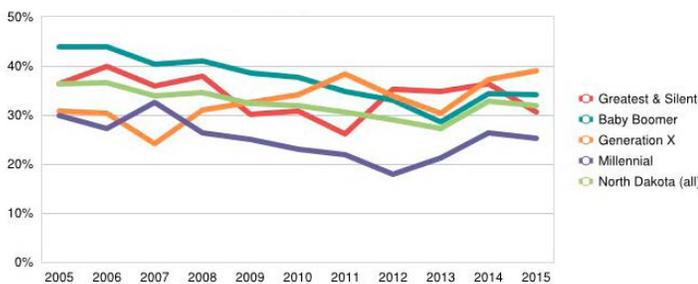
## Rural North Dakota communities must tap into the next generation of leaders.

Leadership and volunteer development is crucial to the lasting success of organizations, the workplace and communities.

### Need

With more than 8,300 organizations in North Dakota, one in every 24 people over the age of 18 must step up and serve. Small towns are counting on it. They need people to run for the school board, volunteer for the local ambulance service and serve on nonprofits supporting their local community.

**Residents (16+) who volunteered in the past year by age**  
North Dakota, 2005-2015



Current Population Survey, Volunteer Supplement, conducted by the U.S. Census Bureau for the Bureau of Labor Statistics, [www.ndcompass.org](http://www.ndcompass.org)

Gov. Burgum’s Main Street Initiative is designed to create attractive communities where young workers want to live. These successful, vibrant communities are supported by effective leaders and volunteers who, in turn, give back to help build a place in which people want to live, work and play. Expanding leadership and volunteer development programs in rural areas through local coaching can help build this next generation of leaders to help their towns survive and thrive.

### One-time funding is requested to assist with:

- Expanded leadership and volunteer development programs and coaching for rural areas (including programs such as Lead Local, Youth Lead Local, Growing Leaders Short Course and North Dakota Watershed Leadership Academy).
  - 94 percent of participants involved in NDSU Extension leadership programs report being better prepared to serve in a leadership role after the training, compared with 69 percent before training.
- Statewide conference on leadership and volunteerism

### The ultimate benefits to rural North Dakota communities:

- More individuals running for positions to fill 8,314 volunteer organizations’ needs, as well as running for office on various ag-related boards, water boards, health-care boards and other local, regional and statewide ballots
- More young adults (30- to 45-year-olds) choosing to stay or return to rural communities to engage in the workforce, build the local economy, maintain a healthy community and engage with leaders and volunteers in opportunities they care about



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