



INTERVIEW

DEANA KNUTESON, researcher, outreach specialist and Healthy Grown® coordinator, University of Wisconsin (UW)-Madison Nutrient and Pest Management (NPM) program

By Joe Kertzman, managing editor, *Badger Common Tater*

NAME: Deana Knuteson

POSITION: Researcher, outreach specialist, and Healthy Grown coordinator

UNIVERSITY & DEPARTMENT: UW-Madison, NPM program

LOCATION: Madison, WI

HOMETOWN: Wilmot, WI

YEARS IN PRESENT POSITION: 23

PREVIOUS EMPLOYMENT: UW-Extension

SCHOOLING: Ph.D. (2000) and Master of Science (1997) from UW-Madison Department of Entomology, and Bachelor of Science in Biology (1994), UW-Stevens Point

AWARDS/HONORS: American Studies Association (ASA) Outreach Awards' Potato Association of America Outstanding Extension Project Award; International IPM Achievement Award; Wilmot Union High School Hall of Fame inductee; and U.S. Department of Agriculture Secretary Award for maintaining and enhancing the nation's natural resources

FAMILY: Husband, David, and two daughters, Danika (16) and Danyelle (14)

HOBBIES: Family, travel, golf, and keeping up with the kids

As requirements for sustainability in the agriculture industry become more evident in the marketplace, and as more complex data is collected on farms, it's important for growers to understand these trends so they can be prepared and proactive.

That's just one area where Deana Knuteson, Wisconsin Healthy Grown program coordinator, has been a tremendous help.

Coordinating the Healthy Grown program, Knuteson, a University of Wisconsin-Madison researcher and outreach specialist, has demonstrated how on-farm data can be used to document and improve production practices, as well as for promotional purposes to show farm advances.

As part of her research responsibilities, Knuteson provides technical information on biointensive integrated pest management (IPM), sustainability production practices, and educational activities for Wisconsin potato, vegetable, and cash grain growers.

She works with the growers and supply chain representatives on large-scale agricultural sustainability initiatives, and facilitates grower-to-grower, processor, and industry educational functions.

The Wisconsin Healthy Grown program works to advance growers' use of biointensive IPM, efficiently manage inputs, and enhance ecosystem conservation efforts by certifying under the "Healthy Grown" potato, onion, and carrot standards.

Healthy Grown high-bar standards promote agricultural sustainability, enhance environmental farming systems and put Wisconsin growers in a position to capture the expanding consumer demand for sustainable options in the marketplace.

Above: As coordinator of the Wisconsin Healthy Grown Program, University of Wisconsin (UW)-Madison Researcher and Outreach Specialist Deana Knuteson assists growers with questions on the certification process, helps them change any of their practices if needed and matches them with UW researchers for questions that they may have. In the background image, a potato field stretches to the horizon on Schroeder Brothers Farms in Antigo, Wisconsin, which joined the Healthy Grown program as a seed grower, in 2018, certifying some fresh acres as well.



You've been with UW-Madison in the Department of Horticulture and prior to that with UW-Extension for more than 25 years. What first attracted you to that area of concentration?

I was lucky enough to start working with Dr. Jeffrey Wyman (emeritus, UW-Entomology) when I was an undergraduate student, and he helped me get interested in vegetable entomology.

Jeff was a true mentor, was my major professor during graduate school, and got me involved in the industry and excited about future opportunities.

I found great joy in working with the industry, especially with the great innovative growers, and I was fortunate enough to find a job where I could work with Wisconsin potato and vegetable farmers.

I currently work on sustainability, IPM and best management practices, water quality and quantity, soil health

and supply chain requirements (just to name a few) and continue to enjoy working on innovation and new research ideas with the industry.

Can you give me a brief working bio and progression of your career?

I currently manage and coordinate the Wisconsin Healthy Grown program and work on related UW sustainability programs by providing technical information on bio-intensive IPM, sustainability, and BMP (best management practices) in potato and vegetable production.

I develop educational programs to implement environmentally responsible and economically feasible sustainability practices, as well as coordinate the advancement of an ecological or "green and sustainable" label standard for vegetable certification and marketing.

I work on many aspects and continue to expand into other initiatives,

The Healthy Grown program gives potato and vegetable farmers the ability to promote agricultural best practices and position themselves to capture an expanding consumer demand for sustainable options in the marketplace.

including water quality, resilient and regenerative ag programs and help with supply chain requirements.

How much of that work has been with or for the Wisconsin Potato Industry Board and Wisconsin Potato & Vegetable Growers Association?

Much of my career has been working with the WPIB and WPVGA. I have worked with other industries over the years, and many times when working with those industries, I tap into the knowledge I gained by previously working in the potato and vegetable industry.

Working with the Wisconsin potato and vegetable industry is my primary focus area.

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What projects are you currently working on in cooperation with the WPVGA and/or WPIB? I work extensively on the Wisconsin Healthy Grown potato program, which has been active for over 20 years.

Specifically, I concentrate on advancing growers' use of bio-intensive IPM, promoting BMP adoption, reducing reliance on high-risk pesticides, and enhancing ecosystem conservation efforts by certifying under the Healthy Grown potato, onion, and carrot standards.

This program has thrived since 2020 and continues to be a model for national sustainability programs.

Through Healthy Grown, I work closely with the WPVGA Promotions & Consumer Education Committee to ensure continuity between the growers' and suppliers' needs and sales tools. I help with messaging and promotions of the program.

I also work with the Wisconsin Water Stewards Project, where we have taken the approaches from Healthy



Left: A Wisconsin Healthy Grown potato and vegetable grower, packer and shipper, Larry Alsum of Alsum Farms & Produce says hilling potatoes provides the ideal conditions for plant growth.

Right: Deana Knuteson (left) works with the Water Stewards Project, which has borrowed approaches from the Healthy Grown program and adapted them for water quantity resources. The photo was taken at the Hancock Agricultural Research Station where the water stewards online course videos were filmed.

Grown and used them for water quantity and quality resources. I am currently a member of the WPVGA Water Task Force and keep updated on new water research.

Finally, I help WPVGA with grant writing and additional programs such as the Central Wisconsin Farmers' Cooperative Producer-Led Project or other emerging projects.

What is your focus in the Healthy Grown program now? For Healthy Grown, I coordinate the education and management of the program. I provide outreach to current and new growers and deliver updated educational materials. I also manage the day-to-day operations and coordinate grower meetings.

I am continually working with UW specialists and am looking at new



A controlled burn is conducted on Plover River Farms to promote ecosystem health by reducing flammable fuels and invasive species and thus reviving native plant life.

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research objectives that could become part of the Healthy Grown certification program when they are ready.

Each year, I work with the WPVGA and review the data. This helps promote program advances and allows growers to document change

and improvements overtime.

Does that tie into your work on IPM and sustainability? Yes, Healthy Grown is directly linked with IPM and sustainability. Part of the certification program requires growers to address specific IPM needs and provide risk assessment choices for the program.

Above: A proud grower of Healthy Grown potatoes and onions (the latter shown here), Rod Gumz of Gumz Muck Farms says he doesn't want to lose the empathy many people have towards hardworking farmers who provide food for the world. "We have to portray agriculture in the best light in order to continue doing what we are doing," Gumz stresses.

Also, growers must document all their IPM practices to see what they are doing and if any more can be done.

These plans and practices are reviewed by UW-Madison specialists to ensure a high-bar status of these programs.

Growers are asked to track their practices each year so continual improvements can be measured. This allows them to verify that they are using IPM within their fields, and that helps with sales and supply chain needs.

Other sustainability questions are included in the standard and the Healthy Grown certification process fits well for sustainability auditing.

What exactly do you do in terms of



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helping growers with sustainable production practices, and what are those practices? I assist growers with questions on the certification process, help them change any of their practices if needed and link them with UW researchers for questions that they may have.

I basically work as a liaison between the growers, industry, suppliers and UW research and extension folks.

I understand you received funding for the creation of “white papers” and coming up with areas of research concentration for the WPVGA. Can you explain?

There have been questions on how Healthy Grown links to new supply chain requirements, such as carbon sequestration, resilient and regenerative agriculture programs, and climate change needs.

These relate to ecological production systems, conservation programs, healthy soils, cover cropping, reduced tillage, and climate smart agricultural practices.

With Healthy Grown, growers are positioned to work on those criteria and are already using many of these concepts while implementing the required practices to qualify. The IPM and sustainability practices required in Healthy Grown can overlap to these other programs.

So, I'll be developing white papers to analyze these further and directly link how Healthy Grown fits into these new supply chain requirements and then document practices farmers are already using that should help check boxes for sales and marketing purposes.

There's also been mention of work that you are either currently doing or have done in the past with chip and processing growers. Is that ongoing, or what did the research entail? I did some work with the chip and processing growers to develop both short- and long-term research

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“I have enjoyed the long-term relationships that you develop while interacting with such great growers for 25-plus years.”

– Deana Knuteson

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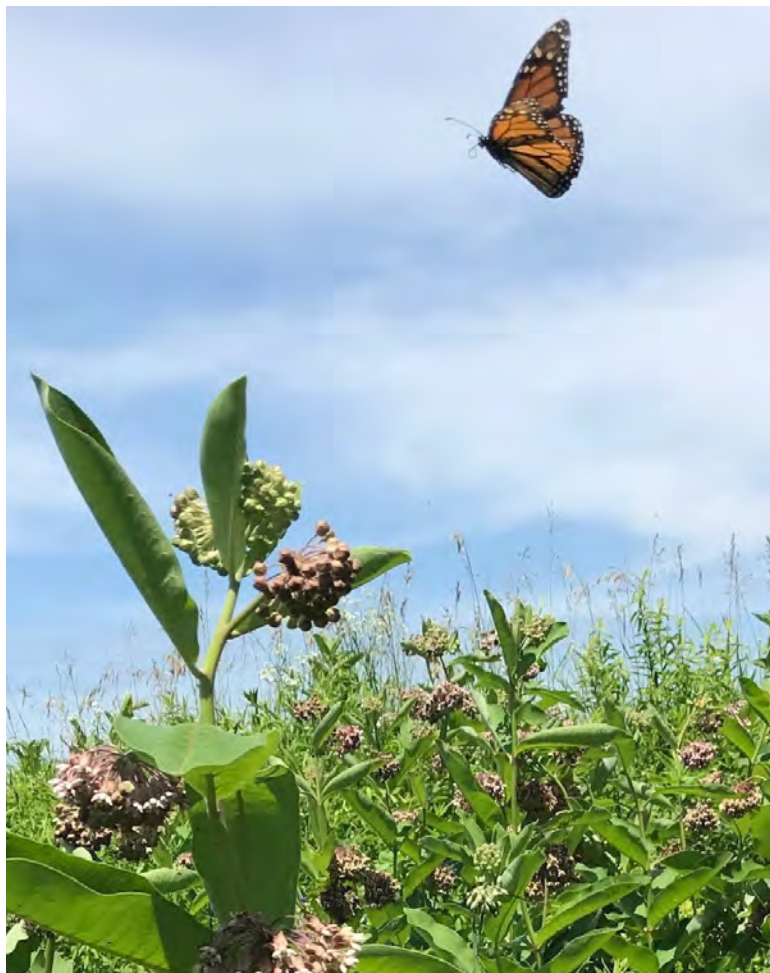
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projects that could help with water quality concerns in their production areas.

This work was valuable to the whole industry as it ended up being a helpful document that compared research options and funding estimates to complete such work.

It laid out research ideas to be started now and completed within three to five years, and more advanced, out-of-the-box and further reaching concepts that needed longer-term study.

That is meant to be a living document and should be updated regularly as new ideas and approaches are developed.

What type of work do you do with grower-to-grower, processor, and industry education functions? I do

presentations, write articles, and develop extension materials to help with educational outreach and am happy to work with growers on that.

Many times, I am happy to work one-on-one with growers to help them with field plans and needs.

Overall, I work directly with researchers to ensure their research-based approaches and new ideas are put into grower-friendly materials that can be used effectively by the industry.

Do you like working with growers, and if so, what do you most enjoy about those relationships? Great question, and the simple answer is, yes, working with the growers is great and one of the best parts of my job.

I have enjoyed the long-term relationships that you develop while

Above: The field shown is part of an Alsum Farms prairie restoration project. "Each [Healthy Grown] grower has to develop an eco-restoration project or projects for their farm that could involve prairie or wetland restoration, woodland reclamation or a combination using the non-production areas on their farm," says Larry Alsum.

interacting with such great growers for 25-plus years.

I have been in the industry for a long time and have grown up working with the growers, and it is nice to see how they have remained involved, innovative and keep changing to stay up to date over such a long time.

It is also exciting to see the next generation of families return to the farm, and I get to start working with them, too.

Overall, I enjoy the friendships along

the way, the continued memories that are formed, and just the great camaraderie within this community.

Do you work with process or fresh potato and vegetable growers, or both? Both, but at times in different ways. Healthy Grown is mostly concentrated in the fresh industry, but we do have some seed growers that get certified.

I work with the processing industry on education and outreach, as many of the practices are cross-cutting.

Some projects, like work on potato soil health and water quality, and the producer-led initiatives, are for the entire industry.

One nice thing is that I get to experience the diversity of the industry, and this keeps things from getting stale as new projects and ideas are continually popping up.

Do you also teach classes as a professor or assistant professor?

I am an academic staff member of



Deana Knuteson (center with white cap) visits Wallendal Farms for an ecosystem field day with Paul Zedler (second from left, professor from the Nelson Institute), in 2007.

the UW, so I don't formally teach, but I do some guest lecturing for classes, which can be students of agriculture but often are non-ag students.

Much of the time I get to guest

lecture about the Healthy Grown program and discuss the innovative sustainability practices of the Wisconsin potato industry.

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The students get to see large-scale sustainability and IPM programs in action, and I can relay the positive messages that are occurring in agricultural landscapes.

Didn't you also write grant proposals for export grants the WPVGA received from the Department of Agriculture, Trade and Consumer Protection for exploring potato exports to Canada and Mexico?

I helped write the two export grants that were received by WPVGA from WDATCP. Each was to look at new export potato markets with inroads into Mexico and Canada.

The Healthy Grown, sustainability, and innovation messages of the industry were needed in these grants and resonated with potential export markets.

What excites you about that area of exploration? I think it is interesting to look at exports now as there seems to be a need in some of those markets for more produce.

Now is a viable time to start exploring options to open new international markets, and I will stay involved to see the progress of those projects.

Where do you hope your research



takes you in the next two to five years and beyond? Sustainability, resultant agriculture, climate smart ag, and regenerative ag all fit under the umbrella of using best management practices, IPM, sustainable ag and improved efficiencies. All are continually needed to better manage the system.

I think those will all be keys in the short term, and our work on tracking practice adoption and efficiencies in agriculture systems is important. Continual advancements of Healthy Grown will be relevant in this landscape.

Above: Shown is an Alsum Farms potato field nearing full bloom in Arena, Wisconsin. *Image courtesy of Beau Hartline, Alsum Farms & Produce*

Also, the non-agriculture landscape restoration efforts on privately owned lands will continue to expand on farms as ecosystem services will become even more important in the future.

In the longer term, I think new technologies, big data approaches, varieties and other mechanical and field innovations will become more integrated into agricultural systems. It will be interesting to see what happens in agriculture in the future.

As I continue in my career, I want to be flexible and nimble and change as needed to help the growers and industry tackle any of the new challenges and advances that occur in potato systems.

Is there anything I've missed, Deana, that you'd like to add? Just that it has been a privilege to work in this industry for so many years and I am looking forward to continuing work with the innovative growers and industry for a long time, hopefully for the rest of my career.

I have enjoyed all the people I get to interact with. I am lucky to have this opportunity. **BCT**



Healthy Grown is a whole farm approach of growing potatoes and vegetables using the best environmental practices possible, from pesticide use to promotion of ecological standards on the farm.