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## DGGW builds seed system capacity in Nepal for young agricultural professionals

Despite plentiful opportunities for seed sector development, trained personnel have been one of the serious bottlenecks in uplifting the seed sector in Nepal. There is a tremendous opportunity to fill the gap through building capacity and systems in wheat seed production and dissemination to smallholder farmers.

With the support of the Delivering Genetic Gain in Wheat (DGGW) project supported by the Bill and Melinda Gates Foundation and UK aid from the British people, the Agriculture and Forestry University (AFU) of Nepal has initiated an innovative seed system. The objectives were to create awareness of and access to quality certified wheat seed by smallholder farmers in the region by developing a Seed Village Model. The project also focused on supporting capacity building of the farmers and other stakeholders. The seed processing unit and the seed testing laboratory were set up and have been functional at AFU since 2017.

[Read more about seed system capacity building efforts in Nepal on the BGRI website.](#)



B.Sc. Ag students of AFU during their Seed Processing Unit Tour at AFU. Photo: Suraj Karkee and Dinesh Marasini



Student performing germination test at Seed Testing Laboratory, AFU. Photo: Suraj Karkee and Dinesh Marasini

## Research team for revolutionary field test wins UK award



Diane Saunders (left) and David Hodson stand with MARPLE, their pioneering diagnostic system. Photo: BBSRC

Diane Saunders was named the 2019 Biotechnology and Biological Sciences Research Council Innovator of the Year for international impact, following her group's work on developing genomics-based approaches for rapid point-of-care fungal disease diagnostics. Their latest advancement known as MARPLE (Mobile and Real-time PLant disEase) Diagnostics, was the result of a collaboration with David Hodson of CIMMYT and Tadessa Daba of the Ethiopian Institute of Agricultural Research.

"I'm delighted to receive this award on behalf of the incredible team and international community we have supporting this project. I hope this continues to strengthen our work with CIMMYT and EIAR and ultimately improve crop protection for farmers," Saunders said.

A separate team of early career researchers from the Norwich Research Park also made it to the finals of the awards for an open source project that has made the technique of speed breeding more accessible to the research community. The team from Quadram Institute Bioscience, the Earlham Institute, the John Innes Centre and the University of Oxford have taken speed breeding to the next level by developing a scaled-down version.

#### Read More:

- [Innovator of the Year award recognises impact of international collaboration in wheat disease diagnostic](#)
- [MARPLE team awarded for international impact](#)
- [Norwich Research Park team in line for early-career innovator award](#)

## Q&A with Mandeep Randhawa

As a part of a global network to combat the Ug99 race of wheat stem rust, the International Maize and Wheat Improvement Center (CIMMYT), in collaboration with Cornell University and the Kenya Agricultural and Livestock Research Organization (KALRO), established a stem rust phenotyping platform in Njoro, Kenya in 2008. The nursery annually evaluates the resistance of

germplasm against Ug99 from 25 to 30 countries around the world.

Mandeep Randhawa, a wheat breeder and geneticist, joined CIMMYT's Global Wheat Program in 2015 and took responsibility as manager of the Njoro wheat stem rust phenotyping platform in 2017. In this Q&A, he highlights the significance of the work being done in Njoro, the mechanisms of wheat resistance, and what he sees in the future for global wheat production.



Mandeep Randhawa being interviewed at Njoro Station. Image credit: Chris Knight.

[Read Q&A with Mandeep Randhawa, CIMMYT wheat rust expert, at Wheat.org](#)

## The value of practicing humility in scientific research

Feng Li's doctoral research focused on enhancing wheat productivity by identifying novel mechanisms for tolerance to diseases and understanding the genetic factors underlying the pathogenicity through genomics-based approaches, including the evolution of a stem rust isolate Ug99. For her commencement address at the College of Food, Agricultural and Natural Resource Sciences (CFANS), she shared some of the most important lessons from her time as a graduate student in Plant Pathology Assistant Professor Melania Figueroa's lab.

"One of our most distinguished alumni, Dr. Norman Borlaug said, 'Rust spores move long distances in the jet streams and know no political boundaries,' when referring to the critical role of international collaboration to prevent hunger in the world," Li said. "In the last three years while working towards my PhD degree, my collaborative work with scientists especially from Africa and Australia further validated this view. Practicing humility allowed us to appreciate each other's contribution to the team and take our research to areas we never expected."



Feng Li delivers her speech at the College of Food, Agricultural and Natural Resource Sciences commencement ceremony. Photo: University of Minnesota CFANS.

[Read a transcript of Feng Li's speech at the BGRI blog.](#)

[WATCH NOW: "Graduate Student Feng Li Explains Her Personal and Professional Growth During Time at CFANS"](#)

## In memory of Marty Carson

The BGRI community has lost a dear friend and esteemed colleague. Marty Carson, formerly of the USDA-ARS Cereal Disease Laboratory in St Paul MN, died May 9, 2019, at his home in Roseville MN, with his wife Deb by his side. [His obituary has been posted](#) on the USDA-ARS website.

"Dr. Marty Carson was a dear colleague and friend of the BGRI community," said Maricelis Acevedo, associate director for science of the DGGW. "I met Marty early on in my professional career when I was a post-doctoral fellow at the USDA-ARS Small Grain and Potato Research Unit in Aberdeen Idaho. At the time, I was working on identifying durable sources of resistance to crown rust of oats. Marty was instrumental in my formation as a crown rust researcher. His jovial outlook on life and mentoring style will be greatly missed."



Marty Carson. Photo Credit:  
USDA-ARS

## Events and Opportunities

### 1st International Wheat Congress

21-26 July 2019 (*Saskatchewan, Canada*)

<http://2019iwc.ca>

### Wheat Diversity and Human Health Conference

22-24 Oct 2019 (*Istanbul, Turkey*)

<https://www.wheat-health.org/en/>

*Abstract Submission Deadline: 15 June 2019*

### 2020 Borlaug Global Rust Initiative Technical Workshop

1-4 June 2020 (*Norwich, UK*)

Registration & Program TBA

## Contribute to the BGRI Newsletter and Social Media

If you have any news of interest to the BGRI community, please send us a message and we will try to include it in subsequent BGRI newsletters! We also publish and share stories on our [Twitter](#) and [Facebook](#) accounts. Use [@globalrust](#) to tag any contributions.

Events, career and educational opportunities, photos, and new publications are especially welcome.

Contact BGRI newsletter editor [Samantha Hautea](#) or [the BGRI](#).

**VISIT OUR WEBSITE**

**Borlaug Global Rust Initiative**  
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