



**August 2019**

## **Smarter deployment of disease-resistance genes critical for safeguarding world's food supplies**



To ensure durable disease resistance in wheat, scientists must embrace a globally integrated strategy, say experts at the All India Wheat and Barley meeting in August. "If we don't change our mentality, we risk reliving the worst horrors of the past and the widespread hunger that results when rust diseases wipe out the wheat supply," said Maricelis Acevedo, associate director of science for the Delivering Genetic Gain in Wheat project.

- [Read the full article on the BGRl website](#)

- **Video:** [Watch a 2013 interview with USDA scientist Bob Bowden](#) about the importance of gene stewardship in the deployment of durable rust resistant wheat varieties.

- Know a scientist who believes strongly in BGRl's goal of responsible gene deployment and stewardship? Nominate a researcher or team of researchers for the [2020 BGRl Gene Stewardship Award](#) today! (Deadline: Oct. 30, 2019)

# As infections ravage food crops, scientists fight back

Scientists from throughout the BGRI community describe the many ways we are tackling the complex challenges facing the global wheat supply in [this article from Science News for Students](#).

## Scientists use DNA fingerprinting to gauge the spread of modern wheat in Afghanistan



The first-ever large-scale use of DNA fingerprinting to assess Afghanistan farmers' adoption of improved wheat varieties reveal high-yielding, disease resistant varieties. "Expanded use of DNA fingerprinting can easily and accurately identify the wheat cultivars in farmers' fields, thus helping to target breeding, agronomy, and development efforts for better food security and farmer livelihoods," said Susanne Dreisigacker, wheat molecular breeder at CIMMYT and lead

author of the new paper published in *BMC Genomics*.

- [Read more about the findings from WHEAT](#).

## Research spotlight

Genome-based diagnostics and disease surveillance are opening new possibilities for securing wheat supplies against rust threats. The Mobile And Real-time PLant disEase (MARPLE) system developed by Dave Hodson and Diane Saunders is bringing the rapid diagnosis of fungal diseases at the gene level right to the field.

- Read the [paper in BMC Plant Biology](#) and check out a blog [written by the authors](#).

## WIT winner earns prestigious Borlaug award



Hale Ann Tufan, one of the world's most powerful voices advocating for gender as a central tenet of crop improvement, was named the World Food Prize's 2019 Norman E. Borlaug Field Research and Application winner. We are incredibly proud of the achievements of our 2010 Women In Triticum (WIT) winner!

- Read more about how the co-director of the Gender-responsive Researchers Equipped for Agricultural Transformation (GREAT) is [shifting crop improvement and agriculture research to include all people and genders](#).
- Do you know an exceptional woman scientist working in wheat? Nominate a scientist for the [2020 Jeanie Borlaug Laube Women in Triticum \(WIT\) Early Career Award](#) today! Deadline is Oct. 30, 2019)

## Progressive Nepalese wheat farmers celebrated



An innovative wheat seed production project has marked a successful first year with a nearly 100% increase in production for more than 100 farmers in Nepal. With support from the Delivering Genetic Gain in Wheat project, the Innovative Seed Systems at the Agriculture and Forestry University worked to facilitate quality seed production and reduce the gap between varietal release and adoption.

- [Read more about the project and a farmer fair celebrating the farmers' success](#).

## Global group of journalists find wheat research, comradery in Canada

A diverse group of agriculture, food security, environment and science journalists gathered at the International Wheat Congress for an intensive course in innovative wheat research and interviews with top international scientists.

- [Read more about the WHEAT media sponsorship.](#)

## Events and Opportunities

### [Training Course for Early Career Wheat Scientists](#)

5-13 October 2019, KALRO, Njoro, Kenya

### [Wheat Diversity and Human Health Conference](#)

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

### 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 [Matt Hayes](#) or [the BGRI](#).

[VISIT OUR WEBSITE](#)

**Borlaug Global Rust Initiative**

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