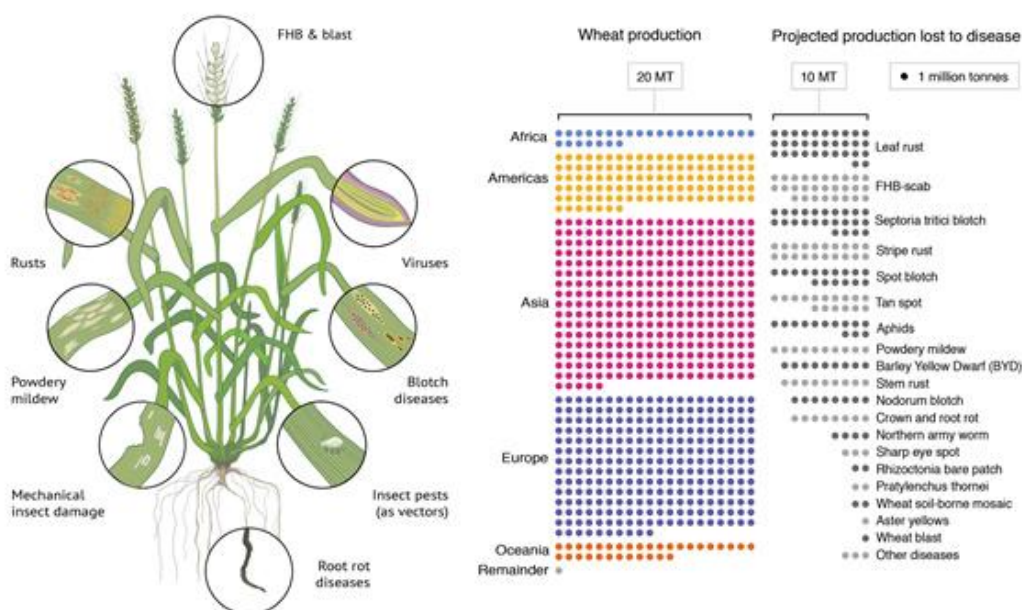


February 2021

## Mapping The Way Towards Durable Resistance Genes



Plant pathogens ravage wheat crops around the world each year. How can scientists better respond at scale? **Amber Hafeez** and her colleagues at the **John Innes Centre** propose a Wheat R Gene Atlas with detailed information into the genetic basis of diseases.

[Read More](#)

## News & Updates

### 13-year Analysis Sheds New Light on Wheat Crop Disease Patterns in Ethiopia

**News: BGRI**

A new study of wheat rust identifies previously unknown long-term trends and hotspots for wheat rust outbreaks in Ethiopia. Using field surveillance efforts funded by the Durable Rust Resistance in Wheat (DRRW) and Delivering Genetic Gain in Wheat (DGGW) projects, the findings offer clues into the influence of genetically resistant varieties and could help reduce

risk of crop failure and famine.

[Read More](#)

## FFAR Grant Develops Climate-Resilient Wheat

**News: Accelerating Genetic Gains in Maize and Wheat for Improved Livelihoods (AGG)**

Climate change-related heat and drought threaten the world's wheat supply. New Foundation for Food and Agriculture Research funding will help CIMMYT and collaborators apply cutting-edge approaches in genomics, remote sensing and big data analysis to develop new breeding technologies.

[Read More](#)



*Credit: Ministry of External Affairs, India*

## Ravi Singh Earns Prestigious Award from India for Wheat Research Excellence

**News: BGRI**

CIMMYT plant breeder **Ravi Singh** received the Pravasi Bharatiya Samman Award, the highest honor conferred by the Government of India to non-resident Indians. He was recognized for invaluable contributions to wheat research and the development and training of scientists that have increased food production and nutritional security in Mexico, India and numerous other countries of Asia, Africa and Latin America.

[Read More](#)



*Sanu Arora. Credit: John Innes Centre*

**2019 Women in Triticum (WIT) winner**

## **Introducing New John Innes Centre Group Leader Dr. Sanu Arora**

**Profile: John Innes Centre**

As a new group leader at John Innes Centre, the 2019 WIT Award winner **Sanu Arora** is working to increase resilience in crops to feed a growing population in a changing climate.

"Here at the BGRI, we are thrilled to see WIT awardees take on research leadership positions and continue to influence the future of science," said **Maricelis Acevedo**, associate director for science.

[Read More](#)

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## **New Genome Sequencing Rekindles Hope for Fighting Wheat Blast**

**News: Dhaka Tribune**

"Understanding a causal gene like this is a game-changer for breeding because you can select for pest resistance more efficiently by using a simple DNA test than by manual field testing," **Curtis Pozniak** told reporter **Reaz Ahmed** of the Dhaka Tribune.

[Read More](#)

# Recent Publications

## **A five-transgene cassette confers broad-spectrum resistance to a fungal rust pathogen in wheat**

M. Luo, L. Xie, S. Chakraborty, *et al.*

[Nature Biotechnology](#)

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## **Evolution of the bread wheat D-subgenome and enriching it with diversity from *Aegilops tauschii***

K. Guarav, S. Arora; P. Silva. *et al.*

[bioRxiv](#)

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## **Wheat rust epidemics damage Ethiopian wheat production: A decade of field disease surveillance reveals national-scale trends in past outbreaks**

M. Meyer, N. Bacha, T. Tesfaye, Y. Alemayehu, E. Abera, B. Hundie, G. Woldeab, B. Girma, A. Gemechu, T. Negash, T. Mideksa, J. Smith, M. Jaleta, D. Hodson, C. A. Gilligan

[PLOS One](#)

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## **Ug99 Stem Rust: Breaching Wheat's Defences**

Nichola Hawkins, National Institute of Agricultural Botany, UK

[Article published by the British Society for Plant Pathology](#)

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## Snapshots





*Hafssa Kabbaj. Credit: Outmane Bouhlal*

***Hafssa Kabbaj***, senior research assistant at ICARDA, is using genomic recurrent selection to breed durum wheat varieties to improve farmer livelihoods in the Senegal river region and other areas around the world.

We want to see more of the wheat science community in action! Share your photos by tagging @globalrust on social media or email us at [bgri@cornell.edu](mailto:bgri@cornell.edu)

## Be a part of the BGRI community

We are an international community of hunger fighters committed to sharing knowledge, training the next generation of scientists and engaging with farmers for a prosperous and wheat-secure world. If you have any news of interest to share with the BGRI community, please send us a message! We share community updates in our monthly newsletter and social media. Tag @globalrust and use #BGRI to get involved in the conversation.

Reach out to the BGRI team at [bgri@cornell.edu](mailto:bgri@cornell.edu) to get involved.

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