

February 2020

DNA fingerprinting determines varietal adoption in Bangladesh and Nepal



Mahesh Subedi and Laxman Aryal collecting wheat samples in Nepal. Photo by Dhruba Thapa



Labeling the sample tubes with barcodes.

Photo by Poornima Gade



Wheat fields in Nepal. Photo by Dhruba Thapa

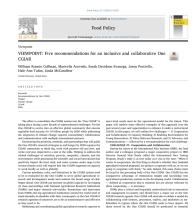
Wheat is a major cereal crop in Bangladesh and Nepal, and both countries have witnessed increases in wheat production due to the release of a number of superior wheat varieties that are resistant to leaf rust, yellow rust, Ug99, Spot Blotch and Blast.

To study the varietal adoption of all the wheat varieties across each country, DNA fingerprinting was deployed as part of a DGGW study led by the Bangladesh Wheat and Maize Research Institute (BWMRI) and the Nepal Agricultural Research Council (NARC), with help from Sathguru.

Preliminary findings in Bangladesh revealed that BARI Gom 25 was the most common variety. In Nepal, Gautam and Vijay were the most popularly grown wheat varieties. Information obtained will enable the BWMRI and NARC to make informed decisions and systematically plan targeted variety replacement strategies.

Results of the DNA fingerprinting will be published shortly.

Read more about the study here in this BGRI blog.



VIEWPOINT: Five recommendations for an inclusive and collaborative One CGIAR

The CGIAR system is near and dear to our hearts here at the BGRI. Farmers and scientists alike have profited from the collaboration we have enjoyed with CIMMYT and ICARDA over the last 12 years in the global fight for food security in wheat. When Ronnie Coffman was invited to submit a Viewpoint for Elsevier's Food Policy journal about the future direction for a One CGIAR, this Cornell team had five recommendations.

Read the VIEWPOINT on One CGIAR here.

2020 BGRI Technical Workshop News



Keynote Speakers



Dr. Theo De Jager President of the World Farmers' Organization



Dr. Sarah Gurr Chair in Food Security Exeter University



Dr. Hale Ann Tufan Winner of the 2019 Norman E. Borlaug Field Award

Registration is still open for the 2020 BGRI Technical Workshop, June 1-4, 2020, in Norwich, in the UK. And we are thrilled about our lineup of keynote speakers.

- Dr. Theo De Jager, President of the World Farmers' Organization, and champion for modernizing, mechanizing and commercializing small-scale agriculture in Africa, will address climate change and how small-scale farmers can lead climate change mitigation. As moderator of the BGRI's Farmer Panel, he will talk about <u>Climakers</u> farmers and stakeholders in the Farmers Driven Climate Change Alliance committed to providing solutions to climate change.
- Dr. Sarah Gurr, world-recognized expert on crop diseases with an emphasis on fungal infestations, their global movement and control, will address how fungal diseases will change in a warming world, the impacts of climate change on plant pathogen movement, and what happens when crops encounter pathogens they have never seen before.
- Dr. Hale Ann Tufan, 2019 recipient of the Norman E. Borlaug Field Award, a 2010 WIT Early Career awardee, and co-leader of Gender-responsive Researchers Equipped for Agricultural Transformation (GREAT), will address the need to take gender and other social aspects into account in developing the product profiles of future varieties, and the impact of creating agricultural systems that more equitably share the benefits of agricultural research among women and men.

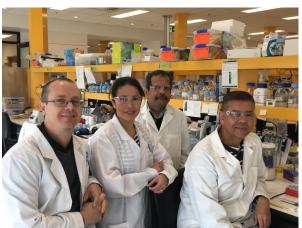
Registration is still open!

Join over 250 participants who have already registered. Engage with your peers. Learn from cutting-edge presenters. Tour the research fields of the John Innes Centre. Take part in training sessions led by global experts on May 30-31.

We will also be honoring the recipients of the 2020 Gene Stewardship Award and the 2019 and 2020 Jeanie Borlaug Laube Women in Triticum Early Career and Mentor awardees. Join us in Norwich!

Register now for BGRI 2020

Recent Videos of Note



(I-r) Dr. Peter Dodds, Dr. Melania Figueroa, Dr. Narayana Upadhyay, Dr. Rohit Mago.

Ug99 and Somatic Hybridisation: The BGRI Interviews Melania Figueroa

The BGRI video interview with Melania Figueroa features the work Melania and her collaborators - led by Peter Dodds, at the Commonwealth Scientific and Industrial Research Organization (CSIRO) in Australia -- did in discovering the novel truth that two donor nuclei came together to create Ug99.

Watch the video.

Read the blog.
Nov 2019 paper in Nature
Communications.

The Seed Program for Improved Seed Production in



Nepal

This video documents the Delivering Genetic Gain in Wheat project's work since 2016 to generate high-quality seeds to increase yield in Nepal in cooperation with the Agriculture & Forestry University.

Watch it here

News

Yellow rust incidence in wheat in Punjab, Haryana causes anxiety, The Hindu, Jan 29, 2020

While Coronavirus talk dominates the US, few notice 25 million Africans being devastated by locusts, Ten15AM, Feb 3, 2020

Another Green Revolution needed for wheat, says report, Amin Ahmed, Dawn, Feb 9, 2020

Seen on Social Media

Rustwatch: Mogens Hovmøller,

Building a European early-warning system for wheat rust diseases, Twitter, Jan 28, 2020

Locust invasion in Pakistan,

Al Jazeera English, Facebook, Feb 12, 2020.

Incidence of Stripe Rust in Nepal, @dklanup, Twitter, Feb 20, 2020

Recent Publications

<u>VIEWPOINT: Five recommendations for an inclusive and collaborative One CGIAR.</u>
William Ronnie Coffman, Maricelis Acevedo, Sarah Davidson Evanega, Jaron Porciello,
Hale Ann Tufan, Linda McCandless. Food Policy, Volume 91, February 2020.

Wheat Rust in Asia: Meeting the Challenges with Old and New Technologies, Ravi P. Singh, Harindra M. William, Julio Huerta-Espino and Garry Rosewarne, APS, Plant Disease, January 2020.

"Transforming Agriculture in Southern Africa: Constraints, Technologies, Policies and Processes." Edited by Richard Sikora, Eugene R. Terry, Paul L.G. Vlek, and Joyce Chitja. Routledge Press. November 27, 2019. Hardback and eBook versions now available. Gratis open-access edition will be released in September 2020.

Opportunities

2020 GREAT course on Gender-Responsive Crop Breeding:

Apply by 11:59 pm EST, February 29, 2020! For interdisciplinary teams of 2-3 agricultural researchers focused on any crop --- including wheat. Course to be held July 20-28, 2020, in Kampala Uganda.

Read more and apply here.

Events

2020 CIMMYT Visitors' Week

March 16-20, 2020: Obrégon, Mexico

March 16, 2020: Field Day

2020 Borlaug Global Rust Initiative Technical Workshop

May 31 and June 1, 2020: Training opportunities prior to the workshop

June 1-4, 2020 (Norwich, UK): Technical Workshop

Registration is still open.

International Conference on Septoria and Cereal Leaf Blights

April 19-21, 2020: Hammamet, Tunisia

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 <u>Twitter</u> and <u>Facebook</u> accounts. Use <u>@globalrust</u> to tag any contributions.

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

Contact BGRI newsletter editor Linda McCandless or the BGRI.

VISIT OUR WEBSITE

Borlaug Global Rust Initiative

| bgri@cornell.edu |

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