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November 2020

Innovative Cabinet Revs Up Speed Breeding



Speed breeding accelerates plant generation but can be an expensive and inaccessible technology to implement. A team of researchers has developed a DIY version called GrowCab whose plans are open-source and open-access. The flat-packed growth chamber is equipped with lighting, temperature and humidity controls, designed to work specifically for speed breeding, and proven to work for speed breeding of wheat.

The developers, pictured above when they qualified as finalists for the BBSRC Innovator of the Year 2019 Award, are: (l-r): Sreya Ghosh and Ricardo Ramírez-González (John Innes Centre, UK), Luis Yanes (Earlham Institute, UK), Oscar Gonzalez (Quadram Institute, UK), and Marcela Mendoza (Aarhus University, Denmark).

The team estimates a GrowCab costs about \$1000 USD to build. Plans for the license-free project are available in a detailed step-by-step online manual. And if you have any suggestions, they want to hear from you: contact.us@grow.cab

[Wikifactory plans available here.](#)

[Read more here.](#)

Q&A with Rust Disease Scientist Sridhar Bhavani



Sridhar Bhavani at a Ug99 wheat stem rust screening event in Njoro.

CREDIT: D.Hansen, Univ. of Minnesota

Sridhar Bhavani presented "A Decade of Stem Rust Phenotyping Network: Opportunities, Challenges and Way Forward," at the BGRI 2020 Technical Workshop in October. CIMMYT published a Q&A with Bhavani about how researchers both within and outside the CGIAR system can best help wheat smallholder farmers in the never-ending battle with wheat pathogens.

[Listen to Bhavani's presentation here.](#)

[Read the Q&A here.](#)

Robert F. Park Wins 2020 Australian Eureka Award



Congratulations to Robert F. Park for receiving the 2020 Eureka Prize award for Leadership in Innovation and Science! Park, the Director of Cereal Rust Research at the University of Sydney, is an international leader in the development of cereal varieties with genetic disease resistance and a valued member of the BGRI.

[Read more here](#)

ICARDA Scientists Win CSSA 2020 Outstanding Paper Award



ICARDA scientists and lead authors: (l-r) Khaoula El Hassouni and Filippo Bassi.

Congratulations to lead authors Khaoula El Hassouni, Filippo Bassi and the team of researchers from the International Center for Agricultural Research in the Dry Areas (ICARDA) for winning the 2020 Outstanding Paper Award from the Crop Science Society of America (CSSA) for their paper: "Root System Architecture and Its Association with Yield under Different Water Regimes in Durum Wheat."

[Read the paper here.](#)

In the News

A catastrophe avoided.

Unprecedented adoption of agricultural technologies introduced by CIMMYT and the Indian Council of Agricultural Research are warding off negative impacts of COVID-19 in northwestern India. Technologies include direct-seeding of rice, crop diversification and adoption of Happy Seeder technology. By CIMMYT, 5 November 2020.

Rust-resistant bread wheat varieties widely adopted in Ethiopia, study shows.

Researchers used DNA fingerprinting to track wheat adoption in Ethiopia. CIMMYT press release. 9 November 2020.

Recent Publications

Proceedings of the Delivering Genetic Gain in Wheat (DGGW) Project Closing Workshop, 19-20 March 2020.

Edited by Eshetu Derso and Bedada Girma. 120-page report from the Ethiopian Institute of Agricultural Research. October 2020.

Borlaug Global Rust Initiative, South Asia, 2008-2020: 12 Years of Wheat Improvement in the Durable Rust Resistance in Wheat (DRRW) and Delivering Genetic Gain in Wheat (DGGW) Projects.

Rituparna Majumder, Richa Kapar, Vijay Paranjape, Maricelis Acevedo and others. October 2020.

Ethiopia's transforming wheat landscape: tracking variety use through DNA fingerprinting.

D.P. Hodson, M. Jaleta, K. Tesfaye, B. Abeyo and others.
Nature Scientific Reports. 28 October 2020.

Agricultural labor, COVID-19, and potential implications for food security and air quality in the breadbasket of India.

Balwinder-Singh, Paresh B. Shirsath, M.L. Jat, A.J. McDonald, Hans Braun and others.
Elsevier Agricultural Systems. November 2020.

Are farmers willing to pay for climate related traits of wheat? Evidence from rural parts of Ethiopia.

Ermias Tesfaye Teferi, Girma T. Kassie, Mario Enrico Pe and Carlo Fadda.
Elsevier Agricultural Systems. November 2020.

A novel way to identify specific powdery mildew resistance genes in hybrid barley cultivars.

By Antonín Dreiseitl. Nature Scientific Reports. 3 November 2020.

Opportunities

List your job opportunity here and reach more than 3,000 wheat scientists.

Save the Date

December 10, 2020: Nobel and Beyond: Building on the Legacy of a Hunger Fighter.

The virtual symposium hosted by the University of Minnesota will commemorate the 50th Anniversary of Norman E. Borlaug receiving the Nobel Peace Prize. It will feature BGRI members Jeanie Borlaug Laube, Ronnie Coffman and Hale Tufan in speaking roles. From 9:30-11 am, CST. [Register in advance here.](#)

March 27-31, 2021: Plant & Animal Genome Conference XXIX

PAG XXIX, originally scheduled for January 2021 in San Diego, has been postponed until at least March 2021, pending further health updates. Stay tuned.

September 12-16, 2022: Second International Wheat Congress

Due to the global outbreak of COVID-19, the Second International Wheat Congress has been postponed to 2022 in Beijing.

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 [Linda McCandless](#) or [the BGRI](#).

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