



APSA  World Vegetable Center

Vegetable Breeding Consortium

Your Research Partner for Success

APSA members with interest in **plant breeding for the development of improved vegetable varieties** can now tap the knowledge and expertise of an internationally renowned leader in crop research by joining the **APSA-WorldVeg Vegetable Breeding Consortium**.

The **World Vegetable Center (WorldVeg)**, a non-profit agricultural research and development institute, aims to alleviate poverty and malnutrition in the developing world through increased production and consumption of nutritious, health-promoting vegetables. WorldVeg carries out its mission by forming research partnerships with government, non-governmental, and private sector organizations in developing and developed countries to **conserve and utilize vegetable biodiversity, improve vegetable varieties, and increase vegetable production, marketing, and consumption**.

WHY create a consortium?

Coping with emerging pests & diseases, and increasing heat and drought stresses requires the use of new genetic resources with abiotic and biotic stress tolerance for developing successful varieties. We are sourcing these traits from the germplasm of the Worldveg genebank collection and introducing them into breeding lines for private sector partners to use in their breeding program.

As advances in biotechnology and genomics accelerate the pace of vegetable cultivar development, seed companies of all sizes must have a robust understanding of the **latest vegetable breeding research**, the practical skills to **apply new breeding methods**, and access to a **diverse collection of vegetable germplasm** to remain competitive in turbulent markets.

Through the **APSA-WorldVeg Vegetable Breeding Consortium**, participating companies and WorldVeg researchers will have multiple opportunities to discuss and evaluate breeding approaches and discover new avenues to share data and progress, creating a win-win situation. The Consortium will focus on tomato, pepper (chili and sweet), cucurbits (bitter melon and pumpkin/winter squash) and explore other vegetables as determined by Consortium Companies' interests.

BENEFITS for Consortium Companies

Professional interaction at the annual workshop

Come to the source! At the **Annual Workshop**—an event held exclusively for Consortium Companies—WorldVeg researchers will demonstrate new outputs from the Center's vegetable improvement program and compare results obtained by Consortium Companies implementing the trials of WorldVeg lines.

During the workshop, Consortium Companies can:

- participate in scientific presentations about ongoing WorldVeg breeding research
- view demonstration trials of the Consortium exclusive lines and hybrids, preliminary yield trials, and/or an advanced testing stage of selected elite breeding lines, subject to weather and field conditions

Each workshop will last two consecutive days. WorldVeg will offer **free workshop participation to one employee** from each Consortium Company. The workshop's location, dates, and format will be announced by WorldVeg and APSA every year. Participants will have the opportunity to hold discussions with WorldVeg scientists by appointment. All workshop participants must cover their transportation costs to reach the workshop vicinity. Prior registration is required.

Early access to improved lines and information

Consortium Companies will be granted a **24-month exclusivity from 1 July each year** ("Lead Access Period") for accessing the annual selected consortium-exclusive breeding lines and hybrids. The exclusive lines and hybrids will be made available for request after completing all seed export quarantine procedures. Consortium Companies who request the consortium-exclusive lines and/or hybrids at later dates will not be able to extend the Lead Access Period. WorldVeg shall be free to distribute consortium-exclusive lines and hybrids at any time after the Lead Access Period ends.

WorldVeg cannot warrant or guarantee the receipt of seeds by Consortium Companies within a specific timeframe after dispatch or at all due to import laws and requirements in the country where Consortium Companies are located, which WorldVeg has no control over. Consortium Companies shall advise WorldVeg in advance regarding specific requirements for importing seeds into its territory. Both DSIR (Department of Scientific Industrial Research) and Non-DSIR accredited companies in India are responsible for all seed importation requirements; WorldVeg will not provide any services related to seed importation into India.

Consortium Companies have early access to screening protocols or other kinds of scientific information developed at WorldVeg, provided the sharing of such information does not conflict with existing agreements or policies of WorldVeg.

Seed

Each Consortium Company can request 15 lines free of charge annually from WorldVeg, subject to seed availability and phytosanitary clearance of requested accessions/lines. If companies request more than 15 lines, each additional line will be charged processing and shipping fees (US\$30 per genebank accession; US\$50 per breeding line). WorldVeg only bears the cost of one shipment.

Transfer any genebank germplasm accessions and/or WorldVeg-improved genetic materials from WorldVeg to Consortium Companies shall follow WorldVeg's material transfer agreements (Standard MTA for genebank germplasm accessions and MTA2 for WorldVeg-developed genetic materials).



Updates on breeding progress

Consortium Companies will receive a **newsletter** highlighting the latest developments of WorldVeg breeding efforts and the evaluation results of the demonstration trials once a year. Other news and information of potential interest to members will be sent throughout the year. A softcopy of WorldVeg's *Annual Report* will be available to all Consortium Companies.

Participation in special projects

Consortium Companies are eligible to develop and participate in special collaborative projects with WorldVeg, subject to additional collaboration costs paid by Consortium Companies to WorldVeg. APSA will promote opportunities to participate in selected collaborative projects to all its members from time to time. Ongoing and recently completed special projects include:

- Genetically diverse and superior bitter melon lines and F1 hybrids of World Vegetable Center for sustainable bitter melon breeding gains and enhanced profitability of smallholder farmers (April 2019 – March 2022)
- Multi-location evaluation of chili lines carrying different combinations of pvr and Cvr genes for resistance to chili vein mottle virus (July 2020 – June 2023)
- Chili leaf curl disease in Asia: Diversity and resistance (July 2020 – June 2024)
- Genetically diverse and superior World Vegetable Center tropical pumpkin lines and F1 hybrids for sustainable pumpkin breeding gains and enhanced profitability of smallholder farmers (July 2020 – June 2023)
- Heat stress tolerance of tomato & pepper (August 2021 – July 2024)

For 2023 special projects, please visit the [APSA website](#) for more details.

Training

Short-term training courses will be made available at a cost to Consortium Companies on topics such as biometry, gene editing, and molecular breeding of vegetable crops throughout the year. Staff from Consortium Companies will receive preferential access and a **20% discount on tuition** for WorldVeg-offered training. This benefit extends to all employees of a Consortium Company.

It is a partnership

The **APSA-WorldVeg Vegetable Breeding Consortium** is a partnership, and WorldVeg greatly values essential information from Consortium Companies to make its breeding programs more relevant to growers. Consortium Companies are expected to provide the following:

- **Regular feedback from evaluation trials of improved breeding lines.** WorldVeg scientists will specify the traits to be monitored and provide experimental protocols.
- **Annual report on varieties sold** with WorldVeg germplasm in their pedigree, the WorldVeg-developed traits these varieties harbor, and the quantity of seed sold (in kilograms per variety per year). Consortium Companies will provide data annually. The aggregated results from analyzing these data will be used in WorldVeg's efforts to raise funds from donors. Consortium Companies will not be asked to reveal the pedigree of their varieties, and all data will be kept strictly confidential.



Join the APSA-WorldVeg Vegetable Breeding Consortium!

Ready to take your company to the next level? Join the **APSA-WorldVeg Vegetable Breeding Consortium** and discover how exposure to the latest research and closer contact with international breeders and scientists will change the way you do breeding and business.

Fees in 2023

- Medium/large companies (more than 100 employees): US\$6,900.00 per annum
- Small/start-up companies (less than 100 employees): US\$2,900.00 per annum

The above fee includes **free annual workshop participation for one employee from each Consortium Company**, which includes lodging, meals, coffee breaks, workshop materials, and ground transportation.

Consortium membership fees are non-refundable. The Consortium term is from 1 January to 31 December. Consortium membership is open to all APSA members in good standing; they can join at any time during the year but must pay the entire annual fee for that term.



To join, please contact the APSA Secretariat or [CLICK HERE:](#)

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