The Arabidopsis Biological Resource Center (ABRC) was established at The Ohio State University with funding from the National Science Foundation (NSF) in 1991. Faculty staff and students collect, preserve, amplify and distribute the seeds, DNA, protein and other resources of the plant Arabidopsis thaliana to researchers worldwide.

**AT A GLANCE**

- Arabidopsis thaliana, a small, flowering member of the mustard family, is widely-used in genetic studies in diverse areas of plant science.
- Its rapid life cycle—about six weeks from germination to mature seed—makes it a perfect model system for research and has led to its nickname, “the fruit fly of the plant kingdom.”
- The ABRC sends more than 150,000 seed, DNA, protein, and cell culture samples each year to researchers in 60 countries.
- The ABRC stores nearly one million stocks cover 92% of approximately 27,000 genes in the Arabidopsis genome.
- After 20 years of extensive research use, Arabidopsis thaliana has become the reference plant for comparison across all plant biology.

**GREENING THE CLASSROOM**

The ABRC has made plants an integral part of the Columbus area K-12 curriculum through the Green K-12+ initiative, a pilot program composed of a series of user-friendly exercises that help explain basic scientific concepts to students, approved by the Columbus City Schools Curriculum Committee. ABRC is an official partner with the Columbus City Schools.

*Greening the classroom, Greening the world*
INSIDE THE ABRC

The ABRC is located in Ohio State’s Center for Applied Plant Sciences (CAPS).

Its seed area contains a laboratory, a seed dispensing robot (SAM), two humidity-controlled rooms for seed handling, four large growth chambers for growing plants, three dry cold-rooms in two locations for seed storage and two -20 C freezers for long-term backup and storage.

DNA laboratory equipment includes a Biomek 3000 liquid handling robot, two incubators and two laminar flow hoods. DNA stocks are stored in ten ultra-low freezers in three locations and in a walk-in cold room.

EDUCATION KITS

Our education kits, which utilize Arabidopsis to demonstrate key concepts of biology, are distributed all over the world free of charge.

“...We want to give students an opportunity to appreciate the potential of plants to address critical global issues, such as food and fuel crises and climate change by performing fun and exciting hands-on exercises.”

(Associate Director Jelena Brkljacic)

PARTNERSHIP SUPPORT

A grant from the American Society of Plant Biologists funds TRAINED: Translating Research on Arabidopsis into a Network of Educational Resources — a central hub for linking, searching and ordering Arabidopsis educational resources and integrating K-12 and undergraduate education initiatives.

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