



Dear Parents/Guardians,

Our recently renovated Environmental Science Center and greenhouse have allowed us to offer all BCA students an opportunity to conduct research in agriscience, and the chance to compete in competitive science fairs as members of BCA Future Farmers of America. Agriscience Research students have presented and competed in the NJ FFA Agriscience Fair, with four students recognized as Division Winners in this year's Fair. Students also participated in a study-abroad experience, presenting their research to students and faculty at Kokatiji High School in Japan.

Students conducting research in the Environmental Science Center and adjoining greenhouse may take courses in both core biology and in the electives, which include "Introduction to Agriscience," Botany, and Agriscience research. The Wednesday project—"Project in Agricultural Sustainability"—also takes place in the Center. Group projects have included Aquaponics, combining the aquaculture of raising Tilapia fish and hydroponic growing of vegetables and herbs (tomatoes and dill currently); the design and construction of two living walls from recycled wood pallets that are planted with tropical houseplants; and the creation of a pollinator garden and two raised beds where pumpkins and corn were grown for a Fall Harvest Display in the main building. Agriscience students have partnered with the culinary department by composting their vegetative wastes into useful additives for outdoor plantings.

I am always impressed by the high level of research that our students engage in. For example, students are participating in three research experiments using various algae to investigate harvesting beta-carotene from marine algae, using freshwater green algae in bioreactors to combat CO₂ levels, and making bioethanol a sustainable fuel source.

The Agriscience Research option now expands our unique high school research program to include seven specialized areas, all of which are open to students from all academies.

Sincerely,

Howard Lerner, Ed.D.
Superintendent