



Plant Breeder

Plant Breeders study seed characteristics and work to improve those characteristics which are most desirable for that plant, such as yield, size, quality, maturity, and resistance to frost, drought, disease and insect pests in plants. A plant breeder will rely heavily on their knowledge of genetics, statistics, molecular technologies and plant growth to develop plants that are best for crossing.



Inspiring Minds to Grow


Funded by the Department of Commerce and Economic Opportunity


career profile

Name: Sarah Cates
Job Title: Plant Breeder


Employer: DeKalb Genetics

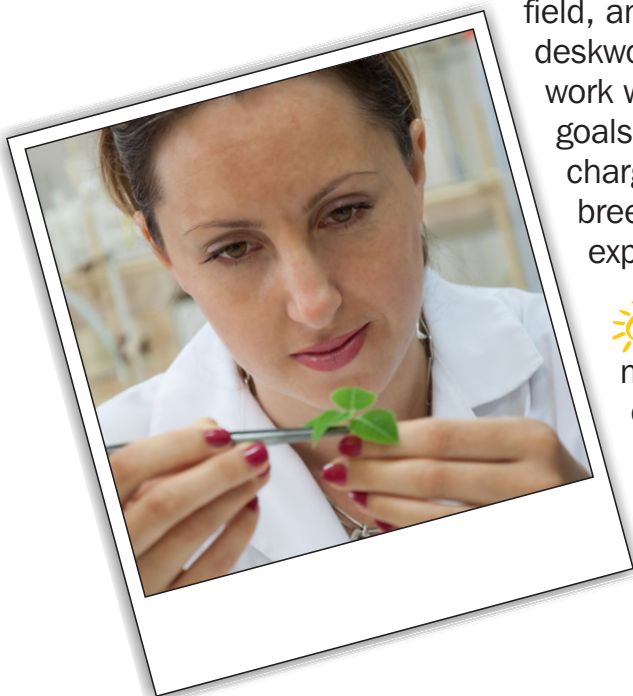
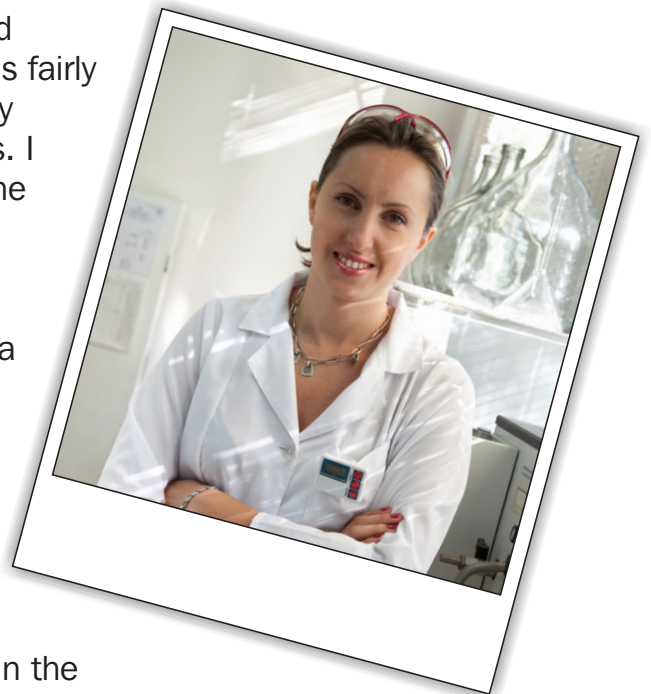
Education: PhD, Cornell University: Ithaca, New York

 I am employed as a plant breeder for a seed company in the Midwest. The way I got my start is fairly typical. In high school, I took an advanced biology class and found I really liked botany and genetics. I entered the science fair and advanced through the regional and state competition. Through that experience, I discovered that I liked research. I pursued my interests at my state university and worked as a lab assistant. Ultimately, I obtained a PhD in plant breeding.

 As a plant breeder I have the responsibility of leading a plant breeding team of researchers. I rely heavily on my knowledge of genetics, statistics, molecular technologies, and plant growth. I work in the laboratory,

evaluate crops in the field, and conduct necessary deskwork to keep projects moving forward. I work with leaders in the company to establish research goals and provide them with research reports. I'm in charge of preparing and submitting budgets for plant breeding projects. I'm also called upon to give explanations on the technical aspects of the work.

 I think one of the most rewarding aspects of my work is seeing a new plant my team has developed reach the market. The fact that the new plant may help farmers produce more food for the world's population is one thing that motivates me.



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overview



A **plant breeder** works to improve seed characteristics, such as yield, size, quality, maturity, and resistance to frost, drought, disease, and insect pests.

suggested high school courses



[plant science](#), biology, chemistry, mathematics, biotechnology, and computer science

experience needed



Participate on campus in labs and research trials when possible. Plan and implement a related Supervised Agricultural Experience (SAE) Program.

degree(s) required



A bachelor's degree in crop science, plant genetics, or agronomy is required. In many cases, an MS degree or PhD in plant science is necessary.

potential employers



cooperatives, government agencies, seed and biotechnology companies, universities

salary range



\$42,340 to \$79,820

employment outlook and trends



The employment outlook for plant breeders is **average**. Graduates with advanced degrees are in the best position for jobs.

professional organizations



Crop Science Society of America www.crops.org/
National Association of Plant Breeders www.plantbreeding.org/napb/



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