

Mars Taps Benson Hill's Crop Design Platform to Help Protect Cacao from Climate Change

Mars will employ CropOS™ to improve the productivity, stress tolerance and climate resilience of cacao trees.

ST. LOUIS, MO and MCLEAN, VA—October 11, 2018—[Benson Hill Biosystems](#), a crop improvement company unlocking the natural genetic diversity of plants, and [Mars, Incorporated](#), a family-owned global pet care, confectionery and food business, today announced a strategic partnership to improve the productivity and climate resilience of the cacao tree, essential to chocolate production.

Healthy, productive cacao trees benefit the millions of smallholder farmers globally who depend on the trees for their livelihood, but climate change and increasing disease pressure put production at risk. Mars has committed to sustainability throughout its operations, including sharing its expertise in science and technology to enable farmers to plant high-yielding, climate resistant, water and nutrient use efficient and disease-resistant cacao.

“We want to enable farmers to produce more cocoa from less land,” said Dr. Howard Shapiro, Chief Agricultural Officer of Mars. “Benson Hill has built an impressive data and machine learning platform designed to provide insights that can improve crops faster. By tapping into the natural genetic diversity of cacao, we can speed up the evolutionary process necessary for improved productivity, disease resistance and resiliency to climate change.”

Benson Hill empowers organizations of any size across the agri-food value chain to benefit from the most advanced tools in seed innovation. Benson Hill's CropOS™ computational platform and suite of breeding and genome editing tools leverage the natural genetic diversity of plants to improve the sustainability, nutrition and flavor profiles of crops with greater precision than previously possible, dramatically improving the cost and timelines to develop new products.

Ray Schnell, Plant Science Discipline Leader, Corporate Innovation at Mars said, “Mars has invested in cacao breeding for over 20 years including sequencing the genome of important parental lines and evaluating large progeny trials. By leveraging Breed, *powered by CropOS*, we aim to use predictive analytics to significantly accelerate the cacao cultivar development program, which will benefit cacao breeders and farmers globally.”

“Mars is a leader in considering the social and environmental dimensions of food production,” said Matt Crisp, CEO of Benson Hill Biosystems. “Their commitment to crop innovation and cross-sector collaboration represents a progressive approach needed to address complex

challenges in our food system. Our team looks forward to working together for the benefit of both farmers and consumers.”

About Mars, Incorporated

Mars is a family-owned business with more than a century of history making diverse products and offering services for people and the pets people love. With more than \$35 billion in sales, the company is a global business that produces some of the world’s best-loved brands: M&M’s[®], SNICKERS[®], TWIX[®], MILKY WAY[®], DOVE[®], PEDIGREE[®], ROYAL CANIN[®], WHISKAS[®], EXTRA[®], ORBIT[®], 5[™], SKITTLES[®], UNCLE BEN’S[®], MARS DRINKS and COCOAVIA[®]. Mars also provides veterinary health services that include BANFIELD Pet Hospitals, Blue Pearl[®], VCA[®] and Pet Partners[™]. Headquartered in McLean, VA, Mars operates in more than 80 countries. The Mars Five Principles – Quality, Responsibility, Mutuality, Efficiency and Freedom – inspire its more than 100,000 Associates to create value for all its partners and deliver growth they are proud of every day.

For more information about Mars, please visit www.mars.com. Join us on [Facebook](#), [Twitter](#), [LinkedIn](#), [Instagram](#) and [YouTube](#).

About Benson Hill Biosystems

Benson Hill empowers innovators with a revolutionary crop design platform to develop healthier and more sustainable food and ingredients. Our CropOS[™] platform combines machine learning and big data with genome editing and plant biology to drastically accelerate and simplify the product development process. More information can be found online at www.bensonhillbio.com. Follow us on Twitter at [@BensonHillBio](#).

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