



Timeline of New Wheat Research Investment Announcements

As of October 2011

2008

- Leadership of NAWG and U.S. Wheat Associates meet with representatives of BASF, Bayer CropScience, Dow AgroSciences, DuPont/Pioneer, Monsanto and Syngenta to urge investment in wheat research and indicate support for biotechnology's application in wheat.
- In October, Syngenta announces its purchase of Resource Seeds and Goldsmith Seeds to add to its AgriPro COKER wheat breeding business.

2009

- In January, Bayer CropScience announces a partnership with Ducks Unlimited to expand research into new winter wheat varieties adapted to prairie climatic conditions.
- In July, Monsanto acquires WestBred and its library of germplasm.
- In July, Bayer CropScience announces it is expanding its seeds and traits business to include wheat and has formalized a long-term partnership with CSIRO, Australia's national research organization and a leading wheat researcher. That project will focus on higher yields, efficient nutrient utilization and drought tolerance.
- In August, Bayer CropScience announces it has acquired biotech firm Athenix. Among Athenix's projects is development of transgenic plants resistant to chemicals and pests.

2010

- In March, Syngenta announces it will enter the hybrid wheat business taking advantage of technology developed for hybrid barley in Germany.
- In April, Syngenta and the international wheat research organization CIMMYT announce a five-year, public-private partnership. That partnership will focus on wheat research and development encompassing native and biotech traits, hybrid wheat and the use of seeds and crop protection products to increase yields.
- In May, Limagrain Cereal Seeds (LCS) announces it will start a North American wheat breeding and seed program headquartered in Ft. Collins, Colo.
- Also in May, Vilmorin, one of the world's largest and oldest producers of field crop and vegetable seeds, purchases a 7.25 percent equity position in Arcadia Biosciences. In parallel, Arcadia purchases a 35 percent ownership position in Limagrain Cereal Seeds, of which Vilmorin has 65 percent ownership. Initial collaboration between Vilmorin and Arcadia is focusing on nitrogen use efficiency for wheat.



- In June, Monsanto and Kansas State University agree to share technology and germplasm via a non-exclusive agreement based on the principles of collaboration endorsed by the NAWG/U.S. Wheat Associates Joint Biotechnology Committee.
- In July, BASF and Monsanto announce they are expanding an existing biotechnology research collaboration to include biotech wheat. The focus of the collaboration is on higher yielding varieties.
- In August, Monsanto and InterGrain announce a new wheat breeding collaboration, with Monsanto acquiring a 19.9 percent minority interest in the leading Australian cereal breeder, the largest shareholder of which is the Western Australia State Government. The focus of their efforts is yield performance, disease resistance, drought tolerance and improved end-use qualities.
- In November, Virginia Tech and Monsanto announce an agreement to share technology and germplasm via a non-exclusive agreement based on the principles of collaboration endorsed by the NAWG/U.S. Wheat Associates Joint Biotechnology Committee.
- In December, Bayer CropScience and Evogene of Israel sign a collaborative agreement to improve wheat varieties utilizing Evogene's genetic modification methods. In a separate agreement, Bayer CropScience will invest \$12 million in Evogene. The partnership will focus on improved yield, drought tolerance, fertilizer utilization and other unnamed characteristics using native and biotech traits.
- In December, Bayer CropScience and the University of Nebraska announce a non-exclusive collaborative agreement, with the University providing access to its germplasm and Bayer establishing its first North American breeding station in Lincoln.
- In December, Bayer CropScience announces it has acquired wheat breeding programs from two Ukrainian breeding companies, SORT and EUROSORT. The company said the agreement would give it access to "outstanding wheat lines with excellent winter hardiness and drought tolerance."

2011

- In January, German company KWS Lochow acquires the wheat germplasm assets of two American companies and consolidates its U.S. activities in a new company, KWS Cereals USA, LLC. The company said these acquisitions will strengthen its global activities, specifically citing U.S. support for biotechnology when announcing the investment. KWS activities are expected to focus on development of soft red winter seed varieties.
- In June, Bayer CropScience announces it has signed a licensing and cooperation agreement with RAGT Semences S.A.S., based in Rodez, France, that will give it access to the privately-owned French company's winter wheat germplasm and associated molecular markers. The companies will also explore joint projects in wheat breeding, and RAGT will have options to license wheat traits from Bayer.
- In July, Dow AgroSciences announces it has acquired assets from Northwest Plant Breeding Company in Pullman, Wash. Dow says it will expand its Hyland Seeds certified wheat seed program into the Pacific Northwest, and it will open a cereal breeding station in Pullman by early 2012.
- In September, Dow AgroSciences announces it has entered into an agreement with HRZ Wheats, an Australian wheat breeding company, to exchange germplasm and provide HRZ access to Dow's technology and financial resources.