The cherry breeding group is one of the most important fruit breeding activities within the Department of Agricultural and Food Sciences (DISTAL). The breeding program started almost 20 years ago in 2000, with more than 3000 seedlings derived from several unknown crosses between autochthonous traditional Italian cultivars and new American varieties. This breeding program has given rise to the internationally acclaimed Sweet Series: a bundle of cherry varieties of differing maturation periods that together cover a 4-5 week harvest period. In addition to maturation period, varieties were further screened for strict quality threshold selection parameters (e.g. ≥ 28 mm minimum size, 4-6 CTIFL scale skin colour, ≥ 400 g flesh firmness, ≥ 18 °Brix sugar content, and 7-8 g/l acidity) creating a group of cherry varieties of the highest quality, and identical organoleptic and aesthetic traits. The rationale behind this breeding objective is to offer to the market and the consumer for a 5-week period a single cherry product under a single name. This creates significant potential in marketing and consumer branding opportunities that previously had not been possible in the cherry fruit segment.

Recognizing the large value of these varieties, UNIBO’s Knowledge Transfer Office (KTO) filed for Plant Variety Rights (PVRs) in 2012 in the EU under variety denomination names PA1UNIBO*, PA2UNIBO*, PA3UNIBO*, PA4UNIBO* and PA5UNIBO* (granted in 2018 by the CPVO). Varieties were further protected by trademark names: starting from the early ripening variety Sweet Aryana®, Sweet Lorenz®, Sweet Gabriel®, Sweet Valina® and to the latest ripening variety Sweet Saretta®. The breeding program did not finish here. In 2015, an additional late-ripening variety with the same high quality organoleptic and aesthetic features was identified. Similarly, PVRs were filed under variety denomination and trademark name PA7UNIBO* and Sweet Stephany® respectively, complementing the bundle after Sweet Saretta® to further extend the ripening calendar into later harvesting periods.

With the support of the UNIBO KTO, the Sweet Series has demonstrated extraordinary success in a commercial context, not just in Italy, but also in the rest of the world. Just five years after its commercial release, licensing agreements have been established throughout Europe with a distribution in Italy, Spain, Portugal, France, Benelux, Czech Republic and Greece. While outside the EU, the Sweet Series global footprint extends into Turkey, Uzbekistan, Switzerland, and as far afield as Australia, South Africa and Chile, where simultaneously PVRs applications have been filed, also in these extra-EU countries. UNIBO KTO is actively searching for new partners for licensing and distribution, especially in Eastern and Northern European territories.

Again, the breeding program is not finished even here, and this year we announce the latest addition to the Sweet Series, a precocious variety of the same high quality that marks the 7th variety to complement the Sweet Series bundle. Similar to the others in the series, the variety will be protected under a denomination name PA8UNIBO* and will give a trademark name Sweet Dave. We predict that this variety will give an enhanced value to the bundle, creating the possibility to start the Sweet Series harvest even earlier in the season as growers and markets request increasingly precocious varieties.

Simultaneously, the UNIBO cherry breeding group has been active on other breeding objectives aside from the Sweet Series. In 2004-05, a new potentially interesting was identified in Vignola and was subsequently tested advanced test semi-commercial test fields (2008-2013). The variety demonstrated exceptional performance in both agronomic and fruit quality characteristics. In 2014, PVRs were filed in the EU under plant denomination name PA6UNIBO* and the variety was further protected by the trademark name Marysa®. Marysa® is a self-fertile variety characterized by high tree vigour, early bearing, high and constant cropping. The fruit is large, predominantly 30 to 32 mm in caliber, heart-shaped and symmetrical, with a dark red colour at ripening. Flesh is firm, with medium-low cracking sensibility, and an aromatic, sweet and strong acidic note giving a fresh sprite flavour. Marysa® is differentiated from the varieties of the Sweet Series and occupies a distinct market positioning to address different needs of producers and consumers.
Sweet Dave PA8UNIBO*

Origin: University of Bologna, Italy by S. Lugli, R. Correale and M. Grandi. Parentage unknown; tested as DCA BO A1A70; Fruit: very early season; very large (80% in ≥ 32 mm caliber fruit class for fruit produced from basal buds). Colour shiny red vermillion becoming mahogany at maturation. Sweet, aromatic and a good sugar acid balance. Stem medium length. Tree: good vigor and adaptable to different training systems and densities; self-incompatible (S1S4); ripens at the period of Burlat in Vignola, Italy; very productive. Can be susceptible to cracking.

Sweet Aryana® PA1UNIBO*

Origin: University of Bologna, Italy by S. Lugli, R. Correale & M. Grandi. Parentage unknown; tested as DCABO A1A1; USPP 25,996; 20 Oct. 2015. Fruit: early season; large, rounded cordate; flesh firm, rose; skin shiny, very dark red; sweet, 18 °Brix; stem length medium, 37 mm. Tree: vigorous; growth habit semi-spreading, branching; self-incompatible (S3S4), ripens 3-4 days after Burlat in Vignola, Italy; very productive. Can be susceptible to cracking.

Sweet Lorenz® PA2UNIBO*

Origin: University of Bologna, Italy by S. Lugli, R. Correale & M. Grandi. Parentage unknown; tested as DCABO A1C27; USPP 25,982; 13 Oct. 2015. Fruit: early season; very large, cordate; flesh firm, rose; skin shiny, very dark red; sweet, 18 °Brix; stem length medium, 37 mm. Tree: vigorous; growth habit semi-spreading, branching; self-incompatible (S3S4), ripens 8-10 days after Burlat in Vignola, Italy; very productive. Can be moderately susceptible to cracking.

Sweet Gabriel® PA3UNIBO*

Origin: University of Bologna, Italy by S. Lugli, R. Correale and M. Grandi. Parentage unknown; tested as DCABO A1C40; USPP 25,997;20 Oct. 2015. Fruit: early-mid season; very large, cordate; flesh firm, rose; skin bright purplish-red; sweet, 17 °Brix; stem medium short, 34 mm. Tree: vigor moderate to high; habit spreading; self-incompatible (S1S4), Vignola, Italy; ripens 14 days after Burlat in Vignola, Italy; very productive. Can be susceptible to cracking.
Sweet Valina® PA4UNIBO*  
Origin: University of Bologna, Italy by S. Lugli, R. Correale and M. Grandi. Parentage unknown; tested as DCABO B5D23; USPP 25,981; 13 Oct. 2015.  
Fruit: mid-season, very large, cordate; flesh firm, rose; skin bright red; very sweet, 21 °Brix; stem length medium, 40 mm. Tree: vigorous, semi-sprea ding; self-incompatible (S3S4); ripens 18-20 days after Burlat in Vignola, Italy; very productive. Can be susceptible to cracking.

Sweet Stephany® PA7UNIBO*  
Origin: University of Bologna, Italy by S. Lugli, R. Correale and M. Grandi. Parentage unknown; tested as DCABO B5A89; USPP 25,972; 6 Oct. 2015.  
Fruit: late season, very large, cordate; flesh firm, red; skin bright red; sweet, 18 °Brix; stem length medium, 30 mm. Tree: vigorous, spreading; self-compatible (S3S4'); ripens 25-27 days after Burlat in Vignola, Italy; very productive. Can be susceptible to cracking.

Marysa® PA6UNIBO*  
Origin: University of Bologna, Italy by S. Lugli, R. Correale and M. Grandi. Parentage unknown; tested as DCABO B5D20; USPP 15/330,470; 18 Sett. 2018.  
Fruit: mid-season, large (28mm), heart-shaped symmetrical. Shiny, purplish red, turning to shiny dark red at advanced ripening. Superficial suture line. Firm, well-textured, juicy sweet and fragrant pink flesh of good quality with high acidity level. Long, intermediate thick stem. Tree: high vigour, intermediate growth habit, self-compatible (S3S4'); ripens 10-12 days after Burlat in Vignola, Italy; very productive. Can be moderately susceptible to cracking.