



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA



THE NEW PEAR TREE VARIETIES | MADE IN UNIBO



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BREEDING PROGRAM

Italy is the European Leader in the production of pears. Despite the large number of varieties available, only few of them find space in the market, covering a wide ripening calendar, which starts in the early august with William and ends in the early september with Abate Fetel and Kaiser.



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DIPARTIMENTO DI SCIENZE AGRARIE

In the early '90s the Department of Agricultural Sciences of the University of Bologna began the pear breeding program, whose most important objectives were: the enlargement of the ripening calendar with new early and late varieties; the high fruit quality; the selection of red-skin pears and the introduction of resistance or tolerance to the major pests of pears (particularly Psyllids and Fire blight). In these years, more than 20,000 seedlings have been obtained from more than 270 combinations of crosses.



To date, the breeding activity, which is being supported by CIV (Consorzio Vivaisti Italiani, based in Ferrara) since year 2007, has led to the protection of the intellectual properties of the most promising pear selections. Indeed, three applications for obtaining Community Plant Variety Rights has been recently filed by the University of Bologna. The new three pear varieties have the following varietal denominations (*) and have been also associated with different trademarks (TM): "PE1UNIBO* Lucy Sweet™", "PE2UNIBO* Early Giulia™" and "PE3UNIBO* Debby Green™". The main characteristics of these novelties are the following: early ripening period (before William); good productivity and yield; high fruit quality; good storability at cold and controlled conditions, demonstrated by several years of observations, and higher than the competing cultivars of the same period.

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PE1 UNIBO* Lucy Sweet™

(CPVR* pending: n. 2014/0969; USA Patent pending: n. 14/121,606)

Harvest date

Last decade of July-early August (10 days before William).



Tree

Medium-high vigour, compatible with quince. Early bearing; high and constant yield. Bearing habitus similar to Abbè Fétel on 2-3-year-old branches.

Fruit

Medium size (170g) and pyriform shape (typical pear-shaped fruit). Green skin, even when fully riped, with slight russet. Melting and juicy flesh with fine texture. Very good sweet flavour.

Edible also when crunchy at the picking time.

Good storability in cold room at -1°C (about 5 months) with no treatments against internal browning.



	Firmness (Kg)	SSR (°Brix)	Acidity (g/l)
Harvest time	6.0	15.7	2.8
Post-Cold Storage	1.6	16.9	2.5

PE2 UNIBO* Early Giulia™

(CPVR* pending: 2014/0970; USA Patent pending: n. 14/121,607)

Harvest date

Last decade of July (15 days before William).



Tree

Medium vigour, compatible with quince rootstocks. Early bearing; high and constant yield. Bearing habitus on 2 year-old branches and 1-year-old shoot.

Fruit

Medium-large size (over 200g), pyriform shape (typical pear-shaped fruit). Green skin, yellow when fully ripe with 20-30% over-colour. White, crispy and juicy flesh with fine texture.

Good flavour: sweet and also sour.

Good storability in cold room at -1°C (about 5 months) with no treatments against internal browning.



	Firmness (Kg)	SSR (°Brix)	Acidity (g/l)
Harvest time	5.6	13.4	4.6
Post-Cold Storage	1.7	15.9	3.3

PE3 UNIBO* Debby Green™

(CPVR* pending: 2014/0971; USA Patent pending: n. 14/121,605)

Harvest date

First decade of August (few days before William).



Tree

Medium vigour, slightly compact, compatible with quince. Early bearing, high yield. Bearing habitus on 2-3-year-old branches and 1-year-shoot. Late flowering.

Fruit

Medium size (180-200g), elongated pyriform. Green skin, yellow-green when fully ripe with slight russet. White, melting and juicy flesh with medium-fine texture.

Good flavour: sweet and quite sour.

Good storability in cold room at -1°C (about 5 months) with no treatments against internal browning.



	Firmness (Kg)	SSR (°Brix)	Acidity (g/l)
Harvest time	5.9	13.7	3.8
Post-Cold Storage	0.5	14.7	3.1

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RIPENING CALENDAR

CARMEN*

PE2 UNIBO* EARLY GIULIA™

PE3 UNIBO* DEBBY GREEN™



PE1 UNIBO* LUCY SWEET™



WILLIAM

15

20

25

30

5

15

25

JULY

AUGUST

RIPENING CALENDAR

CARMEN*

PE2 UNIBO* EARLY GIULIA™

PE3 UNIBO* DEBBY GREEN™



PE1 UNIBO* LUCY SWEET™



WILLIAM

