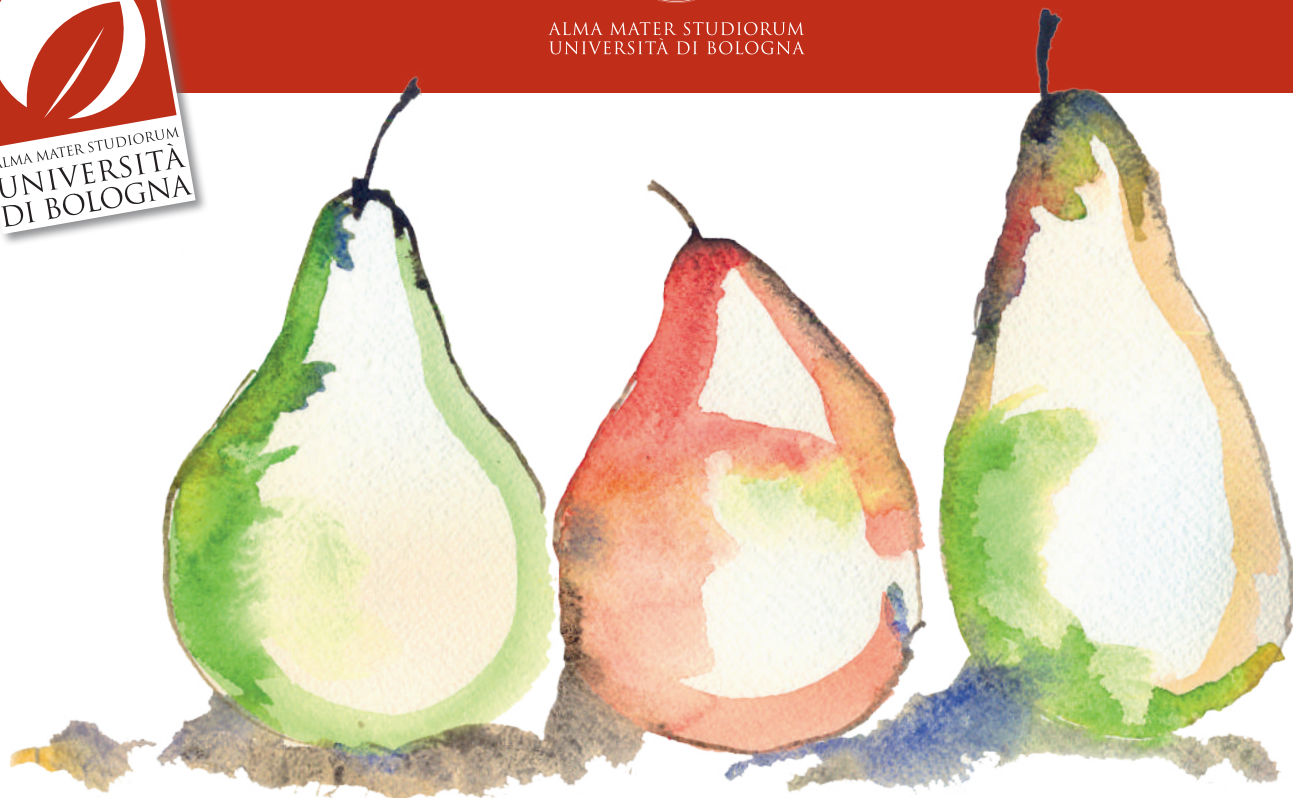




ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA



**THE NEW PEAR VARIETIES | MADE IN UNIBO**

## 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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DEPARTMENT OF  
AGRICULTURAL AND FOOD SCIENCES

In the early '90s the Department of Agricultural and Food Sciences (at the time Department of Agricultural Science) of the University of Bologna began the pear breeding

program. The most important objectives were: enlargement of the ripening calendar with new early and late varieties; high fruit quality; selection of red-skin pears and 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, four pears are now registered and protected as Plant Varieties by the University of Bologna. The new four pear varieties have the following varietal denominations (\*) and have been also associated with different trademarks ®: "PE1UNIBO\* Lucy Sweet®", "PE2UNIBO\* Early Giulia®", "PE3UNIBO\* Debby Green®" and "PE4UNIBO\* Lucy Red®". The main characteristics of these novelties are the following: early ripening period (before William); good productivity and yield; high fruit quality; tolerance to the major pests; good storability at cold and controlled conditions, higher than the competing cultivars of the same period.

## PE1 UNIBO\* Lucy Sweet®

(CPVR\* 52911/2019; US2015/0327416P1)

### 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.  
Resistant to brown spot (*S. vesicarium*).  
Medium sensitivity to fire blight  
(*E. amylovora*).



#### Fruit

Medium size (170g) and pyriform shape  
(typical pear-shaped fruit).  
Green skin, even when fully ripened, 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\* 52912/2019; US2015/0327417P1)

### 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.  
Resistant to brown spot (*S. vesicarium*).  
Medium sensitivity to fire blight  
(*E. amylovora*).



#### Fruit

Medium-large size (over 200g), pyriform  
shape (typical pear-shaped fruit).  
Green skin, yellow when fully ripe with  
20-30% over-colour.  
White, semi-melting 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\* 52913/2019; US2015/0327415P1)

### Harvest date

First decade of August (-1 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

## PE4 UNIBO\* Lucy Red®

(CPVR\* 55889/2020; US2015/0327418P1)

### Harvest date

Second-third ten days of August (Emilia Romagna).



#### Tree

Medium vigour.  
Low compatibility with quince rootstocks (interstem).  
Medium yield.  
Bearing habitus on 1-year-old shoots and 2-year-old branches.  
Late flowering.



#### Fruit

Big size (over 200 g).  
Attractive and elongated pyriform shape.  
Smooth fruit skin with intense red over colour of 90% of the surface.  
White, crispy, juicy flesh with medium-fine texture.

Well-balanced flavour, slightly aromatic.

Good storability in cold room at -1°C (about 6 months) with no treatments against internal browning.

	Firmness (Kg)	SSR (°Brix)	Acidity (g/l)
Harvest time	6.5	14.1	3.8
Post-Cold Storage	1.4	14.8	3.5

# RIPENING CALENDAR

PE2 UNIBO\* EARLY GIULIA®

PE1 UNIBO\* LUCY SWEET®

PE3 UNIBO\* DEBBY GREEN®

PE4 UNIBO\* LUCY RED®



CARMEN\*

WILLIAM

ABATE

17 20 25 30 5 10 15 20 25 30 10

JULY

AUGUST

SEPT.



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