

POST
HARVEST
_CARE

extending
shelf-life

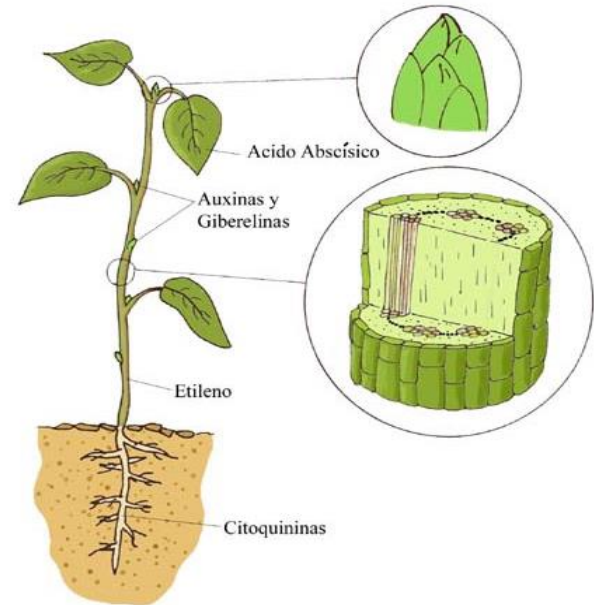
by **BON**

PEAR



What is ethylene?

- **Plant hormone** that regulates processes associated with ripening **and senescence**.
- **It accumulates** in storage chambers and transport containers.
- Physiologically active at **very low concentrations** (0.015 ppm).



Effects of ethylene

- **Accelerates ripening** and over-ripening.
- **Softening** (loss of firmness).
- Alteration of color (**yellowing**).
- Increased susceptibility to **blanching**
- Increased incidence of **rotting** and **fungal infections**.
- Wrinkling and **weight loss**.



Pear and ethylene

Pear is a **climacteric** fruit with many varieties showing considerable differences in **ethylene** production/sensitivity and **post-harvest shelf life**.

Ethylene Low

Williams (o Barlett)

Ethylene Low -
Moderate

Packhams Triumph, Blanquilla, Ercolini, Limonera

Ethylene Moderate

Anjou, Conferencia, Asia

High Ethylene

Comice, Bosc

Solutions to eliminate ethylene should be adapted to the variety and the storage mode/period.



Pear Williams or Barlett

Storage

- ETH machines (bulk fruit in palloxs)
- Sachets (fruit in bag/carton box)- Granulated 4l/kg

Chamber Volume	Model	Duration Granular	Duration Granular AC
850 m3	ETH – V850/1	105 days	210 days
1700 m3	ETH – V1700/2	105 days	210 days
Indistinct	1 Sachets 5 g/bag 15 - 20 kg fruit (normal cold or AC)		

Transportation

- Transprotekt Filters
- Sachets - Granules 4l/kg

- Transit < 18 days → 1 Extend
- Transit > 18 days → 2 Extend



Pear Packham's Triumph

- **Low - moderate ethylene emission.**
- Storage: 3 months in normal cold storage and 8 months in AC.
- **Very sensitive to ethylene** (great effect on loss of firmness, over ripening and yellowing).

Storage

- ETH or PP12 machines (bulk fruit on pallets)
- Sachets (fruit in bag/carton box)- Granulated 4l/kg

Transportation

- Transprotekt Filters
- Sachets - Granules 4l/kg



- Transit < 13 days → 1 Extend
- Transit > 13 days → 2 Extend



Pear Anjou

- **Low ethylene emission.**
- Conservation: 3 months in normal cold and 10 months in AC.
- **Sensitive to ethylene** (great effect on loss of firmness, over ripening and yellowing).

Storage

- ETH machines (bulk fruit in palloxs)
- Sachets (fruit in bag/carton box)- Granulated 4l/kg

Chamber Volume	Model	Duration Normal cold granulation
850 m3	ETH – V850/2	30 days
Indistinct	1 PP12 for 8 Tn Pear in cold normal or AC 1 PP12 for 13 Tn Pear in ULO	
Indistinct	2 Sachets 15 g/bag 15 - 20 kg fruit (normal cold or AC)	

Transportation

- Transprotekt Filters
 - Sachets - Granules 4l/kg
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- Transit < 15 days → 3 Extend
 - Transit > 15 days → 4 Extend



Advantages of use

- Extends **the commercial life** of the fruit.
- Reduces **shrinkage**.
- Maintains **batch homogeneity** after artificial ripening.
- Maintains **color**.
- Prevents **weight loss**.
- It is **disposable**.
- Avoids customer **complaints / returns / renegotiations**.
- Allows to benefit from price **fluctuations**.
- It is **harmless** for workers, the product and the environment.
- It is **easy** to handle and **economical**.
- It can be used on **organic products**.



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THANK YOU

