

POST
HARVEST
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extending
shelf-life

by **BION**



Pears

BION

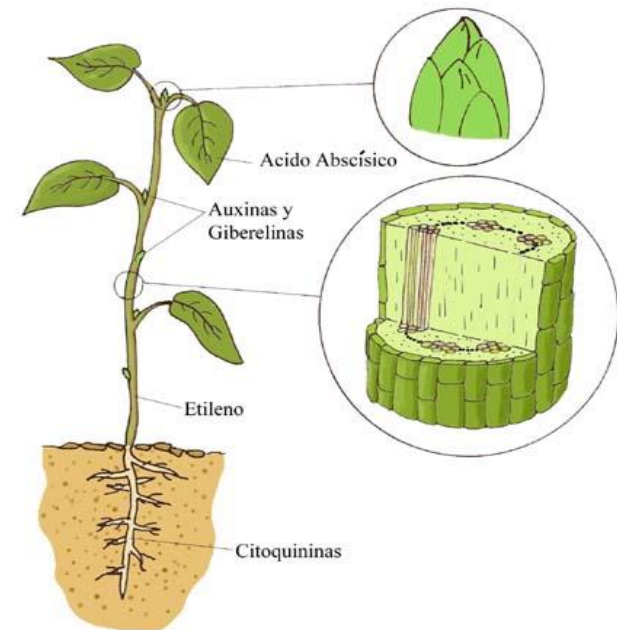
We improve air

What is the Ethylene?

Plant hormone that regulates the processes associated with **ripening and senescence**.

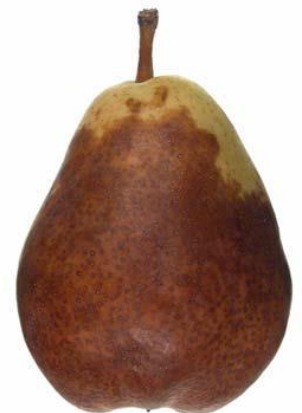
Its accumulate in storage chambers and transport containers.

Physiologically active very **low concentrations** (0,015 ppm)



Effects of Ethylene on Pear

- **Over- ripening.**
- **Softening** (loss of firmness).
- Color change (**yellowing**).
- Higher susceptibility to **scald**.
- Higher incidence of **rots and fungal infections**.
- Shriveling and **weight loss**.



Pear & Ethylene

The **Pear** is a **climateric** fruit presenting a **broad range of varieties** which **differ considerably** with regards to their ethylene production/sensibility and the duration of their **postharvest life**.

Low Ethylene

Williams (or Barlett)

Low-Moderate Ethylene

Packhams Triumph, Blanquilla, Ercolini, Limonera

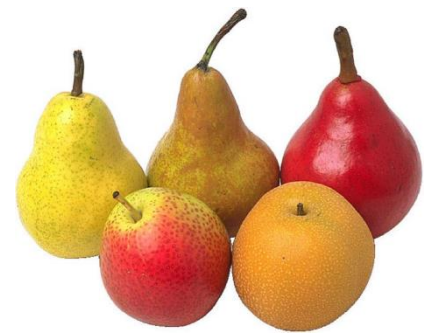
Moderate Ethylene

Anjou, Conferencia, Asiática

High Ethylene

Comice, Bosc

The solutions against ethylene must adapt to the variety and the period/mode of storage.





Williams or Barlett Pear

- **Low emission of Ethylene.**
- Conservation: 3 months normal cold and 6 months in CA.
- **Very sensitive to Ethylene** (big effect on the loss of firmness).

Storage

- ETH Machines (fruit in bulk in palloxs)
- Sachets (fruit packaging bags/box)- Granulated 4l/kg

Chamber Volume	Model	Duration Granulated	Duration Granulated CA
850 m3	ETH – V850/1	105 días	210 días
1700 m3	ETH – V1700/2	105 días	210 días
Indifferent	1 Sachets 5 g/bag 15 – 20 kg fruit (normal cold or CA)		

Transport

- Transprotekt Filters
- Sachets – Granulated 4l/kg

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



Packham's Triumph Pear

- **Low- moderate emission of Ethylene.**
- Conservation: 3 months normal cold and 8 months in CA.
- **Very sensitive to Ethylene** (big effect on the loss of firmness, over-ripening and yellowing).

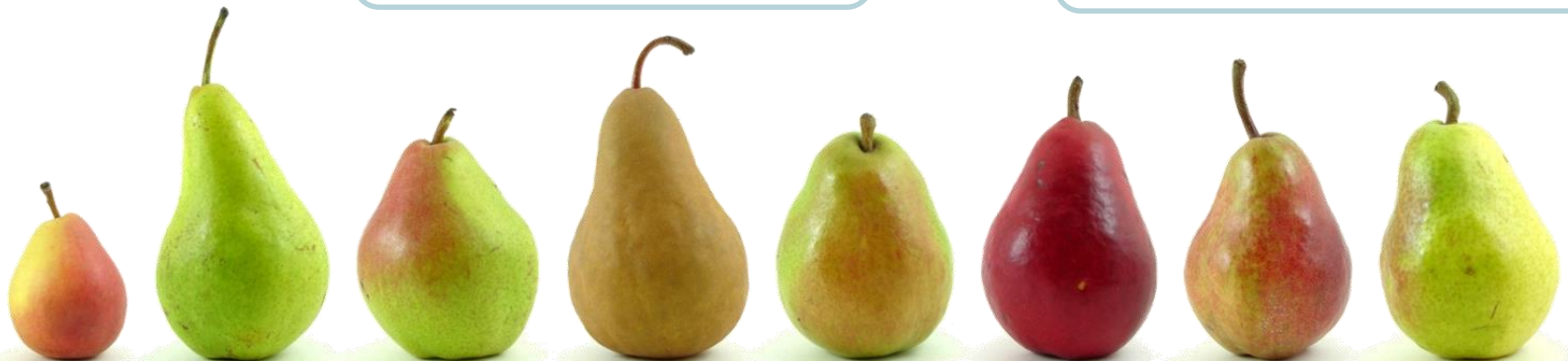
Storage

- ETH machines or PP12(fruit in bulk in palloxs)
- Sachets (fruit packaging bags/box)- Granulated 4l/kg

Transport

- Transprotekt Filters
- Sachets - Granulated 4l/kg

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





Anjou Pear

- **Low emission of Ethylene.**
- Conservation: 3 months normal cold and 10 months CA.
- **Sensitive to Ethylene** (big effect on the loss of firmness, over-ripening and yellowing).

Storage

- ETH Machine (fruit in bulk in palloxs)
- Sachets (fruit packaging bags/box)- Granulated 4l/kg

Chamber Volume	Model	Duration Granulated in normal cold
850 m3	ETH – V850/2	30 days
Indifferent	1 PP12 per 8 Tn Pear in normal cold or CA 1 PP12 per 13 Tn Pear in ULO	
Indifferent	2 Sachets 15 g/bag 15 – 20 kg fruit (normal cold or CA)	

Transport

- Transprotekt Filters
- Sachets - Granulated 4l/kg

- Traffic < 15 days → 3 Extend
- Traffic > 15 days → 4 Extend

Advantatges

- Increases **commercial life** of produce.
- Reduces **waste**
- Keeps the **batch homogeneity** after artificial ripening.
- Prevent **weight loss**
- Is **disposable**.
- Keeps **colour**.
- Avoids **complaints/returns/re negotiations** from clients.
- Permite beneficios de las **fluctuaciones** de los precios.
- Is **harmless** to workers, produce and environment.
- Is **easy** to handle and **cheap**.
- Is usable in **organic** products.





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Thank you

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