Why Are Ripening Programs Important?

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Produce Technical Services

Retailers sell ripe bananas, so why not other fruit? Are they afraid?

The number one reason customers shop a particular store is fresh produce

Ripe Programs
- Are not that difficult to implement
- Commitment
- Communication
- Equipment
- Education

Ripening unlocks flavor

Ripe Program
- Ripe program when properly implemented
- Will cut store level shrink
- Faster sales of fruit
- Better customer satisfaction at home
- Increased and repeat pear purchases
Commitment
- Total store chain commitment
- Buyer
- Merchandisers
- Quality Control
- Produce Clerk

Communication
- How the retailer sources fruit
- How the fruit is handled
- Warehouse
- Merchandisers
- Produce Clerk

Education
- At all levels
- Internet
- Commodity groups
- Consultants

Education
- End goal – Job specific
- Educate each level in their role and how it interacts with the ripe program
- Bring in outside expertise
- Understand what your goals are for the program

Equipment
- Is there proper equipment in house?
- Penetrometer with an 8 mm tip
- Not the 10 mm tip used for apples
- Ripening rooms?
- Ability to cool the fruit?

Ripe Program
- Retailer must decide who will implement the ethylene treatment
- Recipe for ethylene treatment depends on time of year
- Harvest
- Cold storage
- Controlled temperature
In house program

- Check the temperature and pressure of fruit upon arrival

Two categories of fruit

- Climacteric
  - When harvested mature will continue to ripen
  - Have an internal starch reserve that can convert to sugar with ethylene
- Non Climacteric
  - Pick it and it stops ripening
  - Has very little to no starch reserve. Does not get any sweeter from the use of ethylene. It may “de-green” with ethylene use.

Climacteric

- Pears
- Bananas
- Avocados
- Tomatoes
- Mangos
- Kiwi
- Papaya

Non – Climacteric

- Watermelon
- Citrus
- Grapes
- Cherries
- Pineapple
- Berries

Where will the ripening take place?

Shipper/wholesaler Retail warehouse

Ripening with an ethylene controlled release canister
Mobile ripening system

The ripening room does not need to be fancy......just efficient

With a source of ethylene ripening will happen under the right temperatures

U.S. customers seem to have a problem telling which pear is ripe.

Consumers Don’t Buy Pears For Their Flavor

<table>
<thead>
<tr>
<th></th>
<th>Percent</th>
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<tbody>
<tr>
<td>Flavor</td>
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<tr>
<td>Price</td>
<td>25%</td>
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<tr>
<td>Other</td>
<td>11%</td>
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<tr>
<td>Appearance</td>
<td>10%</td>
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<tr>
<td>Ripeness</td>
<td>7%</td>
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<tr>
<td>Total</td>
<td>100%</td>
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Consumers Buy Pears For Their Flavor

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<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Flavor</td>
<td>41%</td>
</tr>
<tr>
<td>Appearance</td>
<td>24%</td>
</tr>
<tr>
<td>Other</td>
<td>12%</td>
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<tr>
<td>Sweet</td>
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<tr>
<td>Juicy</td>
<td>8%</td>
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<tr>
<td>Recipe called for it</td>
<td>4%</td>
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<tr>
<td>Attractive</td>
<td>3%</td>
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<tr>
<td>Total</td>
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</tbody>
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All Pears Benefit from ripening

Pear Bureau North West supports three varieties for conditioning

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Pear Types

- Comice
- Bartlett’s
  - Red
  - Yellow
- Anjou’s
  - Red
  - Green

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Harvest

- Brix level of fruit upon harvest
- Pressure of fruit upon harvest
- Weather conditions
- Size of the fruit

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Cold storage

- How long has fruit been in storage
- Pressure of the fruit
- Physical condition of the storage facility

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Controlled atmosphere

- Length of time in controlled or modified atmosphere
- Pressure of fruit
- Efficiency of facility
- Time of year

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Ripe Program – Retail Store Level

- Produce clerk receives pears and puts in cold box
- Rotation of fruit on shelf and new fruit is very important
- New fruit should go under the old fruit
- Actual ripening should happen at store level
Ripe Program - Remember

- Main goal – absorption of ethylene into pear tissue
- Fruit may not have any pressure change after ethylene treatment

- Ethylene is the key for starch to sugar conversion
- Ethylene also enhances eat ability and flavor profile of the fruit

Questions?