

Is it OK to turn the generator off with Ethy-Gen® II Ripening Concentrate still in the reservoir?

Yes. A small amount may evaporate if left in the generator for a long period of time, especially if the lid to the unit is left open. However, it is perfectly fine to turn the generator off when the ethylene application is complete, leaving any unused Ethy-Gen® II in the reservoir. Also, it is OK to leave a generator running with no Ethy-Gen® II in the reservoir.

What generator setting should I use?

It totally depends upon several factors: the size of the room, how "air tight" the room is and number of air exchanges per time period. The chart below shows the suggested settings for the Easy-Ripe®, Auto-Ripe®, CRS - Centralized Ripening System® Generators and Smart-Ripe® Generators.

Conversion Rate Settings and approximate room size:*

- # 1: 1 Quart of Ethy-Gen® II every 48 hours; 1,500 to 2,499 ft³ (43 - 70 m³)
- # 2: 1 Quart of Ethy-Gen® II every 36 hours; 2,499 to 4,999 ft³ (71 - 141 m³)
- # 3: 1 Quart of Ethy-Gen® II every 24 hours; 5,000 to 7,499 ft³ (142 - 212 m³)
- # 4: 1 Quart of Ethy-Gen® II every 12 hours; 7,500 to 12,000 ft³ (213 - 340 m³)

*It may be possible to use just one generator for a room that is larger than 12,000 ft³ (LxWxH, 340 m³); it depends upon how tight the room is. We have found these setting to be applicable for most rooms and provide sufficient ethylene (150 - 300 ppm) to initiate the ripening process in bananas, tomatoes and other fruits (except citrus, which requires less than 10 ppm; for this, use our Citrus Generator). However, some ripeners prefer to take ethylene readings with an Air Sampling Kit and select the setting that produces the ethylene level desired.

Note that for rooms larger than 12,000 ft³, if necessary, additional generators can be used to achieve the proper ethylene level.

Can I use more than 150 ppm of ethylene to speed up the ripening?

It serves no purpose because the additional ethylene has no effect. Any ethylene exposure over 150 ppm does not hurt the fruit* but the extra ethylene provides no benefit. Once the proper ethylene level is attained, the only thing that will speed up the ripening process is a higher temperature. Sometime fruit that has been ripened at too high of a pulp temperature is referred to as "overgassed." Often the cause of poor quality associated with this misnomer is not excessive ethylene but extreme pulp temperature at some period in the postharvest life of the fruit, or poor fruit quality, such as old, stale fruit.

**Note: Citrus is an exception; it cannot be exposed to more than 10 ppm and the precise ppm level depends upon variety).*

I sometimes feel light-headed or find it difficult to breath in a ripening room during the initial stages of the ripening cycle. What causes this?

For the first few days of a ripening cycle, fruit takes in a large amount of oxygen and produces carbon dioxide. This environment therefore can make it difficult to breathe. Venting of the ripening room, which removes this buildup of CO₂ and replaces it with fresh oxygen, not only makes it easier for people to breathe in the room but also gives the fruit the fresh air it needs. CO₂ inhibits the ripening process and, when not vented out, can cause uneven and delayed ripening, and, while not very likely, but possibly a difficult breathing environment.

I hear that ethylene is explosive. How can I be sure that I'm safe from this danger?

Yes, ethylene is very explosive, at concentrations above 27,000 part per million (ppm). However, the ripening process of most fruits can be initiated by ethylene at concentrations as low as 50 ppm, or less than 1 % of the explosive level, and most operators ripen with 1,000 ppm or less. When using any of our generators, and following our easy, simple directions, there is no chance of explosion. As a matter of fact, in a normal one load banana room (about 3,500 ft³), you would likely need at least 20 of our generators operating on the highest setting (# 4) to have the potential production of 27,000 ppm.

My bananas are not ripening evenly. What can be causing this?

Uneven ripening is caused by one of at least four things:

1. Insufficient amount of ethylene, caused any of these situations:
 - a. Generator setting too low for room size
 - b. Not applying ethylene long enough to trigger the fruit to ripen on its own
 - c. An air leak, large enough to considerably reduce ethylene levels, has developed somewhere in the ripening room
2. Immature fruit: When harvested, the fruit had not yet reached a mature stage. In order for fruit to ripen properly, it must be picked when fully developed and mature
3. Mixed lots: a room of fruit that contains various grades, comes from different origins, or is not uniform in characteristics will usually not ripen evenly
4. Old fruit: When ripening fruit that has been "held" for an extended period of time after harvest, the ripening results will inevitably vary and will usually involve uneven ripening, as some of the fruit will begin to ripen before others. As a general rule with most types of fruit, it is best to apply ethylene as soon as possible to mature green fruit; this ensures that all fruit within the room will ripen even and uniformly.

Why does Catalytic Generators make sure that their generators comply with UL® and TÜV Product Service Standards?

These are independent, not-for-profit, non-governmental organizations formed to help reduce injury, loss of life, and property damage. To do that their scientists investigate and test products to evaluate their electric, fire, and casualty hazards. We felt that, since our generators are electrical instruments, it would be in the best interest of our customers to ensure that our equipment is of top quality and workmanship; passing these stringent safety standards would be the best test. With these marks on our generators, our customers can rest on the fact that the equipment has been found to be reasonably free from foreseeable risk of fire, electric shock, and related hazards.

What is the shelf life of Ethy-Gen® II Ripening Concentrate?

It has an indefinite shelf life; it is best stored in an out-of-traffic area at temperatures of less than 125°F, and in accordance with local fire codes.

