

## **Ice-O-Lator Manual**

for the Travel, Small, Medium and Large Ice-O-Lators

## Introduction

The Ice-o-Lator is a simple and pure water and ice extraction method. The use of a double screen guarantees a very pure end product, dust particles and plant waste will stay behind in the water. The key of the process is a water temperature of just above zero (centigrade).

Of course, the amount and quality of the end product depends on what you put in. Use small cuttings, the big leaves do not have that many crystals on them. Also make sure there are no hard branches inside, they might damage the screen or block the mixer.

If you use buds, pull them apart so the crystals can get free.

## Requirements

- 1 bucket with lid, the size of your outer Ice-O-Lator bag
- 1 kitchen mixer
- kitchen paper (absorbing)
- $\pm$  2-5 Kilo ice cubes, enough to keep the temperature down to 4°C. (41°F.)

## The Process

1) Fill the bucket with ice-cold water, up to 15 cm under the edge. Put the bags in, first the fine screen, then the coarse screen, and make sure there is no air in between the bags and the bucket. The bags should hang straight down to create optimal space inside. Pull the bags over the rim of the bucket and pull the cord to tighten. Deep freeze the plant matter for at least an hour before you start.





2) Put the plant material in the Ice-O-Lator, according to the following table:

Travel 25 grams
Small 200 grams
Medium 500 grams
Large 1500 grams

The crystals need enough space in the bag to be able to fall. If the bag is too full, they will be stuck in the plant mass. Put the ice on top of the leaves to make sure the leaves will stay below the surface.

3) Fill up the bucket with water up to 5 cm under the rim and leave the mass to soak for 15 min., to get really cold and wet. The ideal temperature for the process is  $3^{\circ}$  to  $5^{\circ}$  C. (=  $41^{\circ}$  F.).









Make two holes in the lid of the bucket to get the mixer through. After soaking, move the ice under the leaves, put lid with mixer on the bucket and turn it on at the low speed. Turn for 15 min., stop mixer and open lid. Move all plant material from the sides towards the middle. Leave the Ice-O-Lator off for 5 min. to give crystals some time to sink. Then turn on mixer again.

Repeat this process until all leaves have been stirred, and are floating around in the bucket. Usually this will take about 1 hour.

**4)** When the process is finished, take out the bag with the leaves, and let the water drip out. Close the bag on top with one hand, just allowing some air to go through, and push the bag back under water, push up and down to wash of the crystals well. Make sure you work clean, everything that falls in the second (fine screen) bag will end up in your end product. Make sure that the crystals that have fallen through the first bag don't stick to the outside of the bag. Rinse them off carefully with some water and make sure they fall in the fine screen bag.







**5)** Take out the fine screen bag and let the water drip out. It's a good sign if the screen is blocked. Take the bag in two hands and move up and down in opposite direction to move the crystal mass from left to right and back. The water will find more space to fall through.

When the water is gone, the crystals remain in the screen. If it is visibly polluted (green colour), rinse carefully with cold water. The tiny pieces of leaf material will fall through the screen. Fold the screen so the crystals are caught in between. Put a thick layer of kitchen paper around it, and press between your hands. Press hard, it will press the water into the paper.

Now you can put a next load of leaves in, and use the same (cold) water (you can use it up to 5 times). Put the big screen bag back into the bucket and repeat from step \*2. The remaining water in the bucket contains all water solvable nutrients of the plant, and makes a perfect fertilizer.

**6)** Take the crystals out of the screen, crumble it on a smooth surface to dry. The Ice-O-Lator can be rinsed with cold water immediately after use. If the crystal remains have dried in the screen, use alcohol 96% to clean the screen.

The rest of the moisture must be taken out of the crystals immediately, or it will start to mould. The easiest way to cruble it and let it dry. Or you can hand-press until you have a solid ball. Keep squeezing and pressing, water will become visible on your hands. If it is too sticky to work on, freezing the crystals shortly to prevent this.

To get the last bit of moisture out, make the ball as flat as possible, and put it in the freezer. Freezing water will expand in volume, and appear on the surface of the crystal mass. Just wipe it off...

When you press the crystals, they will break and the oil will be released. The mixture will get dark. Only crystals of very fresh leaf waste of for instance `white` plants will always stay blond. This is a very special quality.

It deserves recommendation to rinse the Ice-O-Lator bags with cold water immediately after use. Any dried up crystals can be removed using alcohol (96%).