

The ways for Lupo's Applications

Since early of 1980s, ethylene issues to plant physiology have been widely discussed. Through hundreds of scientists' efforts, some effective ways for preventing ethylene attacks was discovered. 1-MCP is one of those.

We are not the experts of plant physiology, but handling the 1-MCP technology on a much more appropriate way.

Our objectives are to closely work with the experts in the fields to fully utilize this already discovered technology for the existing issues, and to bring the real benefits to the Growers in the world.

I: Treatment by Fumigation

1): Hand Spray – CS-100

While spraying, the 1-MCP gas will be released as thousands of tiny bubbles, quickly spread around the space for fumigation.

Existing Applications:

- A): Closed Cardboard Cartons in the Packing House
- B): Prepared Fumigation Rooms
- C): 20ft or 40ft Containers
- D): Small Controlled Atmosphere (CA) Rooms; Regular Air (RA) Rooms; Cold Storage Rooms, from 500 – 1,000 M³.



2): Spray by Remote Controlled Devices – CS/RC 500 - 2000

It is spraying by “push button”, electrical signal driven, and controlled either by timer, or triggered manually. While spraying, the fluid hits the prepared fabric-laminated target and the 1-MCP gas releases quickly.

Targeted Treatments:

- A): Large Controlled Atmosphere (CA) Rooms; Regular Air (RA) Rooms; Cold Storage Rooms (from 800 – 4,500 M³).
- B): Additional Treatment is possible during storage.
- C): Dispatching Warehouses for Fresh Produces.

II: Treatment by FTI Solution

With non-toxic Absorbent (ABT), dissolving the 1-MCP gas into water, forming a stable solution (FTI) for 1-MCP treatment either by dipping or by surface spraying. Details please see Technical Document VKT TPR-018.

3): Aqueous Immersion

Dipping the crops into the FTI, with treating time 3 – 5 minutes

Suitable for:

- A): Fruits or vegetable requiring water washing after harvest.
- B): Foliages and cut flowers suitable for water dipping.
- C): Seedlings suitable for water dipping.

4): Hand Spray with FTI

Pour the FTI into the spraying tank, spray on the surface of crops.

Suitable for:

- A): Potted Flowers & Cut Flowers
- B): Potted Plants & Cut Plants
- C): Seedlings
- D): Root Treatments
- E): Fruits & vegetable

5): The Potential Development

A): Integrated into the existing irrigation system

By adding the TCS into the irrigation water to form FTI, the integration of 1-MCP treatment in the existing irrigation system can be possible for field applications. With slight modification of the formulation, the FTI can be used as the additives in the industrial application for ethylene related growing issues, for large scaled Growers.

These include Cotton Field, Tomato Field, Potato Field, wheat & rice seedlings, as well as many other fields in agricultural industries.