



Flowering Enhancer

Produces strong and healthy floral blooms and protects against harsh grow room conditions

Flowering Enhancer contains a carefully balanced combination of potassium and phosphorus and is supplemented with calcium and iron chelate to combat harsh grow room conditions:

- Promotes vigorous floral blooms.
- Strengthens plant structure and foliage during heavy fruiting stages.
- Locks nutrient pH below 6.5 and prevents deficiency symptoms, even when hard water or alkaline additives are used.
- Dosage 2ml/L | Available in: 250ml // 1L // 5L // 20L

TESTIMONIES



"The size and weight of our fruits have been really impressive since using Flowering Enhancer."

"Our plants are now a lot stronger and more rigid throughout flowering."

"We use Flowering Enhancer with our regular nutrient and the improvement in pH stability and solubility was obvious from the outset. There is also no more leaf yellowing from early flower."



Growing plants indoors under grow lights is very different to outdoor growing. Pay particular attention to the lamp size and type, plant height and density, and the distance between the lamp and foliage.

LAMP SIZE & TYPE

The lamps size (wattage) and type (spectrum) is essential for ensuring plants receive adequate light. When using HID or fluorescent lamps, lux* meters are useful for checking if all foliage is receiving the correct amount of light. Ensure to check both high and low:

- **Clones /seedlings:** 5,000–7,000 lux. Use fluorescent.
- **Vegetative growth:** 15,000–50,000 lux. Use MH lamp.
- **Flowering:** 45,000–70,000 lux. Use HPS lamp.

*PAR meters are more accurate and can also be used to test LED lights, however they are very expensive.

Too little light?

Can be caused by foliage being too far from the lamp i.e. lamp is too high, or plants are too tall, or area of coverage is inadequate (see below). May also be due to shading from over-planting, inadequate plant shaping/training, incorrect lamp size/type, or due to a faulty lamp or incompatible ballast. Insufficient light will produce



Fig 3.1 Lamp selection (from left to right): 'High pressure sodium' (HPS), 'metal halide' (MH), 'strip fluorescents' (SL), 'compact fluorescents' (CFL), LEDs.

sparse foliage, spindly branches and poor flowering.

Too much light?

Can be caused by the lamp being too close to foliage or incorrect lamp size. Symptoms will be evident on upper most foliage and may include stunted growth, and folding, bleaching or burning of leaves.

Area of coverage

The lamps wattage will largely determine the size of the 'effective' growing area - see Fig 3.3 and Table 3, "Area of coverage". However, to unleash the lamp's full potential, it is critical to also choose a lamp shade that



Fig 3.2 Strategic pruning (topping) and low stress training (LST) combined with horizontal netting will create a plant that uses light most efficiently.

provides maximum reflection efficiency and focuses the light evenly (without hot spots) and with the correct amount of spread i.e. not too wide or narrow. The use of reflective material on walls and other large surfaces helps ensure that light is not wasted through absorption.

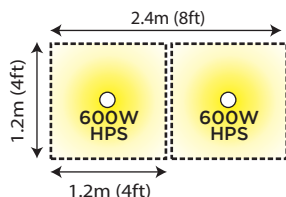


Fig 3.3 From Table 3 we can estimate that 2 x 600W HPS lamps would be suitable for lighting an area 2.4m x 1.2m (4 x 8ft).

Plant height

Light intensity diminishes rapidly as distance from the lamp increases. Therefore, along with choosing the correct wattage, it is important to ensure the majority of

foliage is positioned within lamp's "sweet-zone". This is best achieved by training plants into a low, wide and flat canopy (Fig 3.2) - see section on Topping and LST (Fig 8.1).



Fig 3.4 Light meters are used to check if all foliage is receiving enough light and if lamps have degraded.

Lamp height

To best utilize lamp output, position the lamp as close as possible to the top of plants without causing photo-respiration or burning of foliage (see Table 3 for "minimum gap" guidelines).

Air cooled lights should be used because they enable lamps to be positioned closer to the foliage. These are particularly beneficial for 1,000W lamps (Fig 7.2). Ensure lamps are hung so that their height can be easily adjusted as the plants grow.

Plant density / shading

Shading becomes an issue when plants are positioned too close to one another. It is generally more productive to plant fewer plants, rather than more.

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TABLE 3: HID lamp specifications (HPS & MH)

	250W	400W	600W	1000W
Area of coverage	0.6 x 0.6m (2 x 2ft)	0.9 x 0.9m (3 x 3ft)	1.2 x 1.2m (4 x 4ft)	1.5 x 1.5m (5 x 5ft)
Minimum gap (Lights to foliage)*	-30cm (12in)	40-50cm (15-20in)	50-60cm (20-24in)	60-90cm (24-36in)

*The minimum gap should generally be increased for young plants including seedlings and those in early veg phase; The gap can be reduced by using air cooled lights.