

# **PhotoFinish®**

# Nitrogen-free finisher for liquid feeding

PhotoFinish is an advanced nitrogen-free water soluble finishing feed that has been specially developed for use in soil-less cultivation systems. With an elevated profile of premium nutrients and trace elements that is ideal for flowering plants grown hydroponically, in inert media or coco coir, PhotoFinish can be used as an alternative to HydroSol-B in the late flower/bloom stage of the plant life cycle. Reducing nitrogen input during the last 2-3 weeks before crop harvest assists flower maturation and maximises harvest quality.

The PhotoFinish dry mix is used to prepare a concentrated stock solution, which is then further diluted to produce the feed solution that is delivered to the plants. HydroSol-A stock solution is also required to provide calcium to the plant feed solution.

PhotoFinish has a fully dissolving formulation that helps prevent blockages in irrigation lines, drippers and sprinklers and is compatible with all hydroponic and liquid feed systems. PhotoFinish is a versatile and extremely economical alternative to ready mixed liquid plant feeds.

## **Benefits of PhotoFinish**

- Encourages transfer of plant energy into crop maturation and ripening
- ✓ Versatile and economic for all types of hydroponic cultivation
- ✓ Simple to use, ideal for both experienced and novice growers
- ✓ Blended with professional grade ingredients for the best nutrition
- ✓ Hydrogen ion buffered to prevent pH swings in the feed solution
- ✓ Stable chelated micronutrients for more efficient uptake by plants
- Fully water soluble with no residue to block drippers and sprinklers
- ✓ Free of any excess salts that can damage plant roots and foliage
- ✓ Formula nutrient analysis provided for transparency and reference
- Strong resealable bags for easy handling and long product shelf life

#### PhotoFinish

Phosphorus/Potassium/Magnesium/Sulphur/ Trace Elements (NPK: 0-24-32+4MgO+21SO<sub>3</sub>+TE) Chloride and PGR free

Nitrogen total (N) Nitrate nitrogen (N-NO <sub>3</sub> ) Ammoniacal nitrogen (N-NH <sub>4</sub> ) Phosphorus (P <sub>2</sub> O <sub>5</sub> ) Potassium (K <sub>2</sub> O) Magnesium (MgO) Sulphur (SO <sub>3</sub> ) Boron (B) Copper (Cu) chelated Iron (Fe) chelated Manganese (Mn) chelated Molybdenum (Mo)	0% 0% 24% 32% 4% 21% 0.019% 0.006% 0.123% 0.037% 0.003%
Manganese (Mn) chelated Molybdenum (Mo) Zinc (Zn) chelated	0.037% 0.003% 0.022%

# **Directions for use**

**NOTE:** To avoid unwanted precipitation in the nutrient solution, do not mix PhotoFinish and HydroSol-A together until fully diluted.

**CAUTION:** The PhotoFinish dry mix/powder can cause skin irritation and severe eye irritation. Take care when handling the dry mix to avoid any prolonged skin contact and contact with eyes. Avoid breathing in product dust and wash hands after use. Store in original packaging and keep away from children.

## Preparing the concentrated stock solution

The concentrated stock solution is prepared by dissolving PhotoFinish in an opaque plastic container of water. The recommended concentration for the stock solution is 10% (i.e. for each 1 litre of water add 100g of PhotoFinish dry mix). The PhotoFinish dry mix will dissolve most rapidly in lukewarm water.

Shake the package before use to ensure the contents are well mixed.

Example: To create 2 litres of concentrated stock solution at 10% concentration -

- Add 2 litres of lukewarm water to a 2.5 litre opaque plastic container with a tight filling lid.
- Carefully pour in 200g (i.e. 100g per litre) of PhotoFinish dry mix.
- Stir for 2-3 minutes until PhotoFinish dissolves.
- Place lid on container and label the container 'PhotoFinish'.

## Preparing the feed strength solution

The feed strength nutrient solution is prepared by further diluting the PhotoFinish and HydroSol-A concentrated stock solutions together in water to achieve the desired EC (Electrical Conductivity) level. The recommended mixing ratio is 1 part HydroSol-A to 2 parts PhotoFinish (i.e. 33% HydroSol-A / 67% PhotoFinish).

**Example:** To create a feed strength solution with an EC of  $1.8mS/cm / 1,800\mu S$  (in addition to the background EC of the source water) -

- Add required volume of water to the system nutrient feed tank and measure EC.
- Add sufficient HydroSol-A stock solution to raise EC by 0.6mS/cm (i.e. 33% of the target 1.8) and stir to mix.
- Add sufficient PhotoFinish stock solution to raise EC by a further 1.2mS/cm (i.e. the target 1.8 minus the previous 0.6) and stir to mix.

PhotoFinish is suitable for use in the last 2-3 weeks before crop harvest. HydroSol-A may be omitted in the final week to completely eliminate nitrogen from the feed solution.

## Maintaining the pH of the feed solution

Plants grown in soil-less cultivation systems require a mildly acidic environment around the root zone. The pH of the feed solution should always be maintained between 5.6 and 6.4 (ideally 5.8 to 6.2), as values outside this range will adversely affect plant nutrient uptake. Higher pH levels may also cause precipitation of some of the nutrients in the solution. PhotoFinish is pH buffered so, although somewhat dependent on the source water, feed solutions typically require little pH maintenance once the desired pH level is achieved.

It is recommended to use a 'pH down' product based on phosphoric acid to lower the feed solution pH.

#### Preventing nutrient build-up in coco coir and inert media

In coco coir and inert media such as rockwool, unused nutrients are left behind in the substrate by growing plants. The leftover nutrients can build up to levels that are toxic to plants over time, particularly in warm conditions when plants take up more water and fewer nutrients. Coco coir also creates a slightly

higher pH (more alkaline) environment around the root zone if feed solution is left to stand in the media, which can lead to iron and manganese deficiencies in the crop.

To prevent excess nutrient accumulation and maintain an appropriate pH, it is recommended to irrigate to excess so that 15-20% run off is achieved with each feeding. Alternatively, the media may be periodically flushed with a  $\frac{1}{3}$  -  $\frac{1}{2}$  strength feed solution before recommencing the usual feed schedule.

## **Product storage**

Store the PhotoFinish dry mix sealed in the original packaging in a cool dry place away from direct sunlight. The PhotoFinish dry mix is hygroscopic (i.e. it will absorb moisture if left exposed to air). The nutritional performance will, however, <u>not</u> be affected if the product becomes damp due to air moisture.

Store prepared PhotoFinish stock solution in an opaque container away from direct sunlight. Storage in a transparent container will encourage microbial growth in the nutrient-rich liquid.

# Disclaimer

The information in this document is provided in good faith, however product application and use are the absolute responsibility of the buyer. It is recommended to trial first on a small scale before any changes to rate, application or other changes in your usual cultivation practices are implemented. As usage circumstances can differ and the application of our products is beyond our control, Hydrocrop cannot be held responsible for any negative results.

#### Irritant



Irritating to the skin. Risk of serious damage to eyes. Wear protective gloves and eye protection. Avoid breathing in product dust. Wash hands after use. Keep out of reach of children.

In case of contact with eyes rinse immediately with plenty of water and seek medical advice.

## **Produced by**

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