

EASY PK

Potassium Phosphate Fertiliser Solution

EASY PK is a liquid phosphorus and potassium fertiliser for soil application through fertigation, directed soil sprays, soil banding and soil injection.

It may also be diluted in water and used in foliar sprays (to supplement fertiliser applied to the soil).

ANALYSIS (weight/volume)

| | |
|---------------------------------------|-------------|
| 1 % Nitrogen (N) w/v as ammonium | (10 g/L N) |
| 12 % Phosphorus (P) w/v water soluble | (120 g/L P) |
| 24 % Potassium (K) as phosphate | (240 g/L K) |

SPECIFIC GRAVITY

EASY PK has a specific gravity at 20⁰ C of 1.42.

This gives EASY PK an analysis on a weight/weight basis of:

| | |
|--------------------------|--------------|
| 0.7 % Nitrogen (N) w/w | (7 g/kg N) |
| 8.6 % Phosphorus (P) w/w | (86 g/kg P) |
| 17.1 % Potassium (K) w/w | (171 g/kg K) |

HEAVY METAL IMPURITIES

Cadmium (Cd) 50 mg/kg, Lead (Pb) 10 mg/kg, Mercury (Hg) 1 mg/kg

WARNING: Use of this product may result in lead (Pb) residues in excess of the Maximum Limit (ML) in plant and animal products and may also result in accumulation of these residues in soils.

“SALTING OUT” AT LOW TEMPERATURE

Most liquids have a ‘salt out’ temperature. This is the temperature at which crystal precipitation and growth occurs because the solution is over-saturated and the water can no longer keep the salts in a dissolved state. With EASY PK this ‘salt out’ temperature is at or below 5°C. If other soluble salts or solutions containing salts are added to EASY PK, the ‘salt out’ temperature will change.

DIRECTIONS FOR USE

EASY PK is mainly used as a soil applied fertiliser, e.g. in fertigation programs.

It may also be diluted in water and applied at low rates and concentrations as a foliar fertiliser.

While EASY PK contains both phosphorus and potassium, it is primarily used as a phosphorus fertiliser. Additional potassium will need to be applied in most situations, as considerably more potassium than phosphorus is normally required.

Direct Soil Application

EASY PK can be applied by applied directly to the soil as an alternative to solid fertilisers.

In annual crops, e.g. vegetables, it is best to band or work the EASY PK into the soil so that the crop has early access to the phosphorus.

If applied before planting, EASY PK can be sprayed on the soil surface in a broad band along the intended position of the crop row, and then be incorporated into the soil by cultivation. Alternatively, it can be injected into the soil, applying the EASY PK below and to the side of the intended seeding position, so that seeds or transplants are not planted into or directly above the fertilised zone.

If applied in the same operation as planting, inject the EASY PK in bands 5 cm to the side of and 5 cm below the seed or transplants.

In trees and vines, spray in a broad band on the soil surface along the drip line, i.e. where the roots will be most actively foraging.

Fertigation

Fertigation provides a convenient and labour-saving means of applying fertiliser during the growing season and allows side-dress fertiliser to be split into a number of smaller applications.

EASY PK can be applied by fertigation (injected directly into the irrigation lines without further dilution in water) in the following situations.

- post-planting in annual vegetable crops, to supplement (but not replace) phosphorus applied in the basal fertiliser. Phosphorus is required early in the life of the crop, e.g. from germination. Responses to phosphorus applied through fertigation systems during the growing season will be better where sub-surface emitters are placed below the crop rows. Surface applications after planting are relatively ineffective, as phosphorus applied this way is not readily accessed by crop roots. Phosphorus does not move quickly or far from the site of application.
- in perennial crops, e.g. tree crops and vines, as an alternative to applying fertiliser dry to the soil, i.e. in the solid form. Seasonal phosphorus rates will be similar to where fertilisers are applied dry to the soil.
- in crops grown under a plastic mulch, e.g. strawberry. Fertigation through emitters placed in the soil is the only practical way of maintaining the soil's fertility and replacing nutrients removed in the harvested produce.

Foliar sprays

Foliar sprays of EASY PK can be used to supplement, but not replace soil applications of phosphorus fertiliser. Too much fertiliser foliar-applied can burn plant foliage.

In cotton, aerial applications of 5 to 15 L/ha can be used neat or diluted with water.

In annual crops, phosphorus is important from germination for root development and early plant growth. Therefore, phosphorus is best applied before or at planting. Foliar sprays may help overcome mild, but not severe deficiencies of phosphorus. If phosphorus deficiency occurs early, e.g. before there is sufficient leaf area for foliar absorption of sprays, crop yield will be irreparably harmed.

EASY PK should be diluted in water before being foliar applied. Suggested foliar application rates for EASY PK in **vegetables** are:

- On young foliage and in sensitive crops, apply up to 500 mL/100 L (0.5%).
- On mature leaves and in tolerant crops, apply up to 1 L/100 L (1%).

It is usually recommended that lower concentrations be used in **tree crops**, in which higher spray volumes are used than in vegetables. As a guide, use EASY PK at 250 mL/100 L (0.25%).

Foliar burn may occur at these concentrations, particularly in crops such as strawberry, French bean, Navy bean and tobacco. Spray concentrations may need to be reduced in sensitive crops. If burn occurs or past experience indicates it is likely, reduce the concentration, e.g. halve these rates.

Higher rates may also be tolerated in some crops and circumstances.

Many factors affect the susceptibility of crops to foliar burn, including the type of crop being grown, its growth stage, prevailing weather conditions, the time of day that the fertiliser is applied, spray

concentrations and volumes, frequency of application, water quality and application equipment. Because of the many variables involved, precise recommendations cannot be made. The expression of symptoms may vary from year to year, week to week, and farm to farm. Burn may occur under both lush and harsh growing conditions.

If applying EASY PK for the first time, or applying to a new crop, in combination with other fertilisers, or should application procedures and equipment change, test spray on a few plants or trees first, and observe for three to four days for signs of phytotoxicity, before spraying the rest of the crop.

The best time to spray is in the early morning. Sprays can also be applied in the late afternoon or evening, or under cloudy conditions, provided the temperature is low and humidity is high. Do not spray in the heat of the day, particularly in summer, when evaporative conditions are at their highest.

If EASY PK is used in conjunction with other fertilisers in multi-nutrient foliar sprays, it may be necessary to reduce the concentration at which the different fertilisers are applied, to ensure that the combined fertiliser rate is not excessive.

If urea is not being applied simultaneously to apply additional nitrogen, add urea to the spray mix at 500 g/100 L in vegetables, or 100 g/100 L in tree crops; plus a wetting agent at label recommended rates. Urea helps promote leaf uptake of other nutrients.

COMPATIBILITY

With other fertilisers

If mixed with EASY N, EASY U Sol, Topfoliar, EASY NS, or EASY NPK 27 should first be diluted in an equal quantity of water. If this is not done, potassium nitrate crystals may form in the mixture. If this occurs, add additional water and agitate to dissolve the crystals.

EASY PK can be mixed with EASY NP, EASY NP +Zn, EASY ATS or EASY KS.

It is recommended that EASY N not be mixed with more than one of these products at a time.

EASY PK is incompatible with and should not be mixed with EASY Cal, Coppersol, Zincsol or Mangasol.

Do not mix with hard water high in calcium.

Foliar Sprays

In foliar sprays, EASY PK is compatible with urea, ammonium nitrate, EASY N, ammonium sulfate, monoammonium phosphate, potassium chloride, potassium sulfate, potassium nitrate, Solubor, sodium molybdate and metallic chelates.

Do not mix with calcium or magnesium salts, e.g. calcium nitrate, or metallic sulfates, e.g. iron sulfate, as insoluble precipitate will form.

Do not mix into hard water high in carbonates, calcium, magnesium or sulfur.

Compatibility with Crop Protectants

If tank mixes of EASY PK and crop protectants are being considered, check the label of the crop protection product and only mix the products if it specifically states that it is safe to do so.

Compatibility is dependent partly on the number of additives and the rates at which they are to be applied, water quality (if diluted), application equipment (degree of agitation) and other factors such as time and method of application. Compatibility checks should be carried out even if the chemical manufacturer has recommended the proposed mix. Checks need to cover -

- Physical compatibility
- Phytotoxicity to the crop at the target growth stage
- Efficacy of the crop protection product(s)
- Efficacy of surfactant and suspending agents (compatibility aides)

If compatibility information does not exist and a joint application is desired, prepare a small amount of the proposed mix and allow to stand in a glass jar over night and observe for signs of incompatibility.

A small quantity of the test mix should then be sprayed on a small area of the target crop and observed for 3 to 4 days for any phytotoxic effects.

If EASY PK is to be applied in combination with crop protection sprays, the chemicals should be added to the spray tank first, followed by the fertilisers. Add EASY PK before adding other fertilisers such as urea and potassium nitrate.

Fill the tank to near capacity, leaving space for the added fertiliser, which should then be added slowly while agitating. Do not pre-mix.

Fertiliser solutions should be prepared just prior to use, and not allowed to stand for an extended period, to minimise sediment formation and settling in tanks.

For more information on using EASY PK in specific crops, see the Crop Guides section.

For further information Agritopics on “Fertigation” and “Foliar Fertilisers” are available if required, and should be read in conjunction with these “Use Directions”.

STORAGE AND CARE OF EQUIPMENT

Store in a cool place, away from direct sunlight.

EASY PK is corrosive to many metals.

Appropriate materials for storing EASY PK include High-Density Polyethylene (HDPE), stainless steel and fibreglass.

Do not store EASY NP in tanks of mild steel, aluminium, brass or copper alloys, concrete or galvanised steel.

Flush application and fertigation equipment after use with water only.

Where applied through fixed irrigation lines, discontinue use towards the end of the shift to flush fertiliser from the lines and off crop foliage. This minimises corrosion and the risk of leaf burn.

Refer to the Handling, Storage and Transport section of the EASY Liquids manual for further details, including appropriate materials for pumps, pipes, plumbing, valves and fittings.

WARNING

Before using fertiliser seek appropriate agronomic advice. Fertiliser may burn and/or damage crop roots or foliage. Foliar burn to the leaves, fruit or other plant parts is most likely to occur when different products are mixed and sprayed together, the water is of poor quality, or the spray is applied under hot dry conditions, eg. in the heat of the day. Because climatic and soil conditions, application methods, irrigation and agricultural practices are beyond the control of Incitec Pivot Limited and cannot be foreseen, Incitec Pivot Limited accepts no responsibility whatsoever for any commercial damage, loss or other result following the use of this product whether used in accordance with directions or not, subject to any overriding statutory provision and provided that such liability under those provisions shall be limited to the replacement of the goods as supplied or the rendering again of the services that are provided. The buyer accepts and uses this product subject to these conditions.

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