

Urea Phosphate

What is urea phosphate fertilizer?

This is a kind of water soluble crystal structured fertilizer ($\text{H}_3\text{PO}_4\text{CO}(\text{NH}_2)_2$) used for phosphorus deficiency in plants. It contains 17,5 % urea (NH_2) and 44% phosphorus (H_3PO_4). As it is soluble in water it can easily be applied by a sprinkler. Physical and chemical properties of urea phosphate fertilizer are given below.

Urea Nitrogen (N-NH₂) 17,5%

Soluble phosphate (H₃PO₄) 44%

Moisture at 25 centigrade < 0,2%

pH 1,6 – 2,4

Insoluble content < 0,1%

Appearance: white crystals.

Urea phosphate may not be used together with calcium nitrate or magnesium sulfate fertilizers.

What are the advantages of urea phosphate fertilizer?

Urea phosphate fertilizer has advantages when compared with phosphorus containing fertilizers such as MAP or MKP because it contains urea nitrogen and phosphorus in the form of phosphate. pH of urea phosphate fertilizer is around 2,0; therefore it is an acidic fertilizer. This acidity both facilitates absorption of other nutrients by the plants and also has positive effects on the pH value of water used for watering.

It prevents blockages in watering pipes and nozzles and thereby helps cleaning of the watering system. Urea phosphate dissolves bicarbonate in water and helps to maintain cleanness of watering system. You do not need to use extra acidic formulations with urea phosphate.

	Features	Advantages	Benefits
UREA PHOSPHATE	Dry crystal acidic form	Easy to handle	Safe to use Ensures a long lifetime for watering system
		Prevents blockages	Ensures homogenous distribution for fertilizers in watering system Extra buffering substance not needed
	Has strong acidic characteristics	Reduced pH values of soil and water used for watering	Provides high productivity and quality
		Reduces sodium and lime in soil	Reduces saltiness risks of plants due to its low salt content
		Increases feasibility of elements	Increases absorption of nutrients by plants
	It is very soluble	Needs low volumes of water	Used efficiently
	It dissolves fast	Needs less time	Used efficiently

Application method:

Urea phosphate may be given via soil or sprinkler systems. The below listed recommendation are given according to types of plantations when sprinkler systems shall be used:

PLANTATION	Via soil/sprinkler
	Shoots – Budding: 300 grams/1/10 hectare/days
FLOWERS	Budding – Initial harvest: 200 grams/1/10 hectare/days
	Harvest: 200 grams/1/10 hectare/days

CITRUS	Flowering - Fruiting: 500 grams/1/10 hectare/days Fruiting - Color change: 800 grams/1/10 hectare/days Color change - Harvest: 200 grams/1/10 hectare/days
FRUIT TREES	Flowering - Fruiting: 600 grams/1/10 hectare/days
VINEYARDS	Fruiting - Color change: 400 grams/1/10 hectare/days
OLIVE	Color change - Harvest: 100 grams/1/10 hectare/days Shoots: 300 grams/1/10 hectare/days
TOMATO (GREENHOUSE)	Flowering - Fruiting: 400 grams/1/10 hectare/days Harvest: 100 grams/1/10 hectare/days Fide - Fruiting: 200 grams/1/10 hectare/days
TOMATO (FIELD)	Fruiting - Initial harvest: 300 grams/1/10 hectare/days Initial harvest - End of Harvest: 100 grams/1/10 hectare/days Shoots: 200 grams/1/10 hectare/days
PEPPER-EGGPLANT (GREENHOUSE)	Flowering - Fruiting: 300 grams/1/10 hectare/days
MELON-WATERMELON (GREENHOUSE)	Fruiting - Harvest: 100 grams/1/10 hectare/days
PEPPER-EGGPLANT (FIELD))	Fide - Fruiting: 100 grams/1/10 hectare/days
MELON-WATERMELON (FIELD)	Fruiting - Initial harvest: 400 grams/1/10 hectare/days End of harvest: 100 grams/1/10 hectare/days March - April : 2 kg/1/10 hectare/months May – End of July: 3 kg/1/10 hectare/months August-End of October: 1 kg/1/10 hectare/months November-December: 2 kg/1/10 hectare/months Monthly fertilizer/monthly water = Daily fertilizer amount
BANANAS	Fide - 30. day: 200 grams/1/10 hectare/days
CUCUMBER (GREENHOUSE)	31. day - 90. day: 300 grams/1/10 hectare/days 91. day - End of Harvest: 100 grams/1/10 hectare/days

CUCUMBER (GHERKIN)

Shoots: 100 grams/1/10 hectare/days

Harvest: 200 grams/1/10 hectare/days

STRAWBERRY

Shoots: 200 grams/1/10 hectare/weeks

4. - 8. weeks : 400 grams/1/10 hectare/weeks

9. week – end of harvest: 100 grams/1/10 hectare/weeks

LAWNS

In April-June-September 0,5 kg of fertilizer should be given to 100 m³ and watered

FRUIT SHOOTS

1-2 years: 100 grams/shoot

3-4 years: 200 grams/shoot

Should be given before budding

FLOWERS IN POTS

400 grams of urea phosphate should be given to 1 m²