

# Fertilizer application on maize in Ethiopia

Soils in maize growing areas of Ethiopia have low nitrogen and phosphorus, deficiencies that severely affect yields. Not only do fertilizers restore these critical soil nutrients when applied at the right time, they also enrich the maize.

Healthy soils mean faster maize growth, increased yields and increased family income.

## What types of mineral fertilizer are available in Ethiopia?

Diammonium phosphate (DAP), which is used as a basal fertilizer. It supplies both nitrogen (N) and phosphorus (P) to maize plants and is recommended for all maize-producing areas of Ethiopia.

Urea, which is used in top-dressing. It supplies nitrogen and is also recommended for all maize-producing areas of Ethiopia.

## What is the best way to apply mineral fertilizer?



### For basal fertilizer

1. Dribble or band fertilizer along the planting furrow.
2. Spot-apply fertilizer 5-10 cm from the maize seed in the furrow or planting hole.

**Tip:** Apply 100-200 kg ha<sup>-1</sup> DAP at the time maize is sown.



### For top-dressing fertilizer

1. Side-dress urea 7-10 cm from the base of the maize plant.
2. Cover the urea with a layer of soil.

**Tip:** Apply urea at 100-200 kg ha<sup>-1</sup> in all maize-growing areas of Ethiopia.



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## When is the best time to apply mineral fertilizer?

### For basal fertilizer

It is best to apply DAP at planting, to ensure adequate uptake of nitrogen and phosphorus.

Fact: Phosphorus is important for maize root growth, while nitrogen stimulates early growth of the whole plant.

### For top-dressing fertilizer

Urea can be applied to maize at different times.

1. In highland areas: apply one third at planting, one third when maize plants are at knee height and one third at flowering/tasseling.
2. In mid-altitude areas: apply urea twice, half at planting and the other half when maize plants are at knee height.
3. In moisture limited maize belts apply urea in one dose when maize plants are at knee height.

## Tip:

Apply urea in fields free of weeds, to avoid accelerating their growth.

## Caution: how to safely use mineral fertilizers



1. Avoid touching your mouth, eyes or nose when handling fertilizer.



2. Do not eat or drink while handling fertilizer.



3. Wash your hands thoroughly with soap and water after handling fertilizer.



4. Safely dispose of containers used to apply fertilizer.



5. Store fertilizer in a dry place, away from direct sunlight and moisture.

For further information, contact your nearest Development Agent (DA) at the Woreda Agriculture Office.