



Maxyield Protocol for French Beans

1. Purpose

This protocol describes the recommended use of Maxyield in French bean production, including nursery production, planting, top dressing, soil pH considerations, and practical field application methods.

2. Nursery Production (Optional)

Where seedlings are raised before transplanting, mix:

10 kg Maxyield with 400 kg nursery soil or growing media

Ensure thorough mixing before filling trays or nursery beds and maintain normal watering and fertilization practices.

Benefits

- Improved root development
 - Better nutrient availability
 - Stronger and more uniform seedlings
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3. Recommended Application Rate

Planting

Apply:

80 kg Maxyield per acre
200 kg Maxyield per hectare
(20 g/m²)

Apply evenly along the planting row or planting bed before sowing or transplanting.

For improved distribution, Maxyield may be mixed with basal fertilizer using an appropriate mixing ratio. It can also be blended with well-decomposed manure or compost before application.

Lightly incorporate into the soil before planting.



4. Top Dressing

Apply:

80 kg Maxyield per acre
200 kg Maxyield per hectare
(20 g/m²)

Apply approximately **3–4 weeks after emergence or transplanting**, before flowering begins.

For better spreading accuracy, Maxyield can be mixed with fertilizer, manure, or compost before application.

Irrigate after application where possible.

5. Total Recommended Seasonal Use

Application stage	Per acre	Per hectare
Nursery (optional)	10 kg per 400 kg soil	10 kg per 400 kg soil
Planting	80 kg	200 kg
Top dressing	80 kg	200 kg
Total per season	160 kg	400 kg

This follows the original seasonal recommendation.

6. Soil pH and French Beans

French beans perform best in **slightly acidic soils**, with an optimal soil pH of **6.0–6.8**. Within this range, nutrient availability, biological activity and root development are maximized, resulting in stronger vegetative growth, better flowering and higher pod quality.

When soil pH falls below **5.5**, phosphorus, calcium and magnesium become less available, while aluminium and manganese may reach toxic levels that restrict root growth and reduce yields.

Indicative Yield Loss from Poor pH

Soil pH level	Soil condition	Indicative yield loss risk
6.0–6.8	Optimal	0%



Soil pH level	Soil condition	Indicative yield loss risk
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5.5–5.9	Slightly acidic	0–10%
5.0–5.4	Acidic	10–25%
4.5–4.9	Strongly acidic	25–50%
Below 4.5	Very strongly acidic	50–70%

These figures are intended as practical guidance. Actual yield reductions depend on soil type, fertility, rainfall, irrigation, and crop management.

7. Maxyield Adjustment for Low pH Soils

Soil pH	Recommended adjustment	Planting rate per acre	Top dressing rate per acre	Total per acre
Above 5.0	Standard rate	80 kg	80 kg	160 kg
Below 5.0	Increase by 50%	120 kg	120 kg	240 kg
Below 4.0	Increase by 100%	160 kg	160 kg	320 kg

Per hectare equivalent

Soil pH	Planting rate	Top dressing rate	Total
Above 5.0	200 kg	200 kg	400 kg
Below 5.0	300 kg	300 kg	600 kg
Below 4.0	400 kg	400 kg	800 kg

8. Benefits of Maxyield in French Beans

- Improves soil structure and root zone conditions
- Supports better nutrient availability
- Improves fertilizer use efficiency
- Promotes vigorous root development
- Supports continuous flowering and pod set
- Improves water and nutrient retention
- Supports uniform pod development throughout the harvest period



9. Practical Field Notes

For best results:

- Apply Maxyield evenly along the planting row.
- Mix with fertilizer, manure or compost for uniform distribution.
- Incorporate lightly into the soil before planting.
- Maintain adequate soil moisture after application.
- Use soil analysis where possible.
- Increase the application rate where soil pH is below 5.0.
- Where soils are strongly acidic, Maxyield should be used together with a liming program.

10. Summary Recommendation

Nursery (optional): 10 kg per 400 kg nursery soil

Planting: 80 kg Maxyield per acre (200 kg/ha)

Top Dressing: 80 kg Maxyield per acre (200 kg/ha)

Total seasonal recommendation:

160 kg per acre

400 kg per hectare

Increase the rate by **50%** when soil pH is below 5.0 and by **100%** when soil pH is below 4.0.
