



How Often Is Corn Fertilized?

Corn is typically fertilized multiple times throughout its growing season, with the schedule and frequency depending on soil conditions, crop type (field or sweet corn), and yield goals:

- **Pre-planting/At Planting:** An initial application of fertilizer (including nitrogen, phosphorus, and potassium) is made before or at the time of planting to support early root and seedling development^[1] ^[2] ^[3].
- **Sidedressing (Early Growth):** Additional nitrogen is usually applied when corn is 8–12 inches tall or at the V6 (six-leaf) stage, which is a period of rapid vegetative growth and high nutrient demand^[1] ^[4] ^[5] ^[6].
- **Midseason (Pre-Tasseling):** A final top-up of nitrogen may be applied around the time the corn is 12–18 inches tall or just before tasseling, especially if soil tests or plant monitoring indicate a need^[1] ^[4] ^[7].
- **Frequency:** Most recommendations suggest fertilizing at least **two to three times per season**, with applications spaced about every 4–6 weeks, focusing on the most critical growth stages (V6 to VT)^[1] ^[7].

How Much Fertilizer Is Applied?

Fertilizer rates depend on expected yield, soil nutrient status, crop rotation, and management practices. Here are typical rates for field corn:

Nitrogen (N)

- **General Recommendation:** 1.0 pound of nitrogen per expected bushel of corn yield^[8] ^[9].
 - For example, a 200 bushel/acre yield goal = **200 lbs N/acre**.
- **Typical Range:** 120–250 lbs N/acre per season, with higher rates for irrigated or high-yield fields^[8] ^[10] ^[11].
- **Application Split:**
 - 30–40 lbs N/acre at planting (starter)^[1] ^[6] ^[11]
 - 40–60 lbs N/acre as sidedress at V6–V8^[1] ^[6]
 - 30–50 lbs N/acre midseason, if needed^[1]

Phosphorus (P₂O₅)

- **Typical Rate:** 60–80 lbs/acre for most soils, adjusted based on soil test results^[1] ^[11] ^[12].

Potassium (K₂O)

- **Typical Rate:** 40–70 lbs/acre, also based on soil test and yield goal^{[1] [11] [12]}.

Micronutrients

- **Sulfur:** 15–20 lbs/acre is often recommended for corn^[11].
- **Zinc, manganese, and others:** Applied as needed, based on soil/tissue tests^[1].

Summary Table: Typical Fertilization Schedule for Corn

Timing	Nitrogen (N)	Phosphorus (P ₂ O ₅)	Potassium (K ₂ O)	Notes
Pre-plant/Planting	30–40 lbs/acre	60–80 lbs/acre	40–70 lbs/acre	Starter fertilizer, based on soil test
Sidedress (V6–V8)	40–60 lbs/acre	—	—	Major N uptake period
Pre-tasseling	30–50 lbs/acre	—	—	Optional, if needed
Total (per season)	120–250 lbs/acre	60–80 lbs/acre	40–70 lbs/acre	Adjust for yield goal and soil supply

Key Points:

- Fertilizer is applied **2–3 times per season** at critical growth stages.
- **Total N applied:** 120–250 lbs/acre, matched to yield goal.
- **P and K:** Applied based on soil tests, often all at planting.
- Regular soil testing is essential to optimize rates and timing, and to avoid over- or under-fertilization^{[1] [2] [10] [11]}.

This approach ensures corn has the nutrients it needs at the right times for optimal growth and yield.

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1. <https://loyalfertilizer.com/blog/how-to-fertilize-sweet-corn-expert-tips-for-optimal-crop-yield-per-acre/>
2. <https://cals.cornell.edu/field-crops/corn/fertilizers-for-corn>
3. <https://greg.app/corn-fertilizer/>
4. <https://www.sound.ag/blog/when-is-it-too-late-to-fertilize-corn>
5. https://www.pioneer.com/CMRoot/Pioneer/US/Non_Searchable/agronomy/cropfocus_pdf/nitrogen_application_timing_corn.pdf
6. <https://www.pubs.ext.vt.edu/424/424-027/424-027.html>
7. <https://greg.app/sweet-corn-fertilizer/>
8. <https://extension.sdsu.edu/news/sdsu-extension-releases-updated-2023-corn-nitrogen-fertilizer-rate-guidelines>

9. <https://www.greatamericancrop.com/news-resources/article/2021/05/04/nitrogen-calculations-getting-it-right>
10. <https://www.cropscience.bayer.us/articles/bayer/how-much-fertilizer-do-i-need-to-apply-for-my-corn-crop>
11. <https://bmp.ifas.ufl.edu/crop-recommendations/corn/>
12. <https://talk.newagtalk.com/forums/thread-view.asp?tid=986417&mid=8893057>