

DOSE CARD

Fertilizer Dose Card

Growers dose feed by concentration, parts per million of nitrogen (ppm N), not by capfuls. The three label numbers are % nitrogen, phosphate and potash by weight. Formula: $\text{ppm N} = \%N \times \text{grams per litre} \times 10$. Liquids: use millilitres in place of grams.

TARGET	PPM N	20-20-20 PER LITRE	20-20-20 PER US GALLON (3.8 L)	10-10-10 PER LITRE	WHEN
Maintenance ('weakly, weekly')	50 to 100	0.25 to 0.5 g (a pinch to 1/8 tsp)	1 to 2 g (1/4 to 1/3 tsp)	0.5 to 1 g	Most waterings in the growing season
Active growth, good light	100 to 200	0.5 to 1 g (1/8 to 1/4 tsp)	2 to 4 g (1/2 to 3/4 tsp)	1 to 2 g	Every 2 to 4 weeks, spring to early autumn
Full label rate	250 to 400	1.25 to 2 g (1/4 to 1/2 tsp)	5 to 8 g (1 to 1 1/2 tsp)	2.5 to 4 g	Greenhouses and gardens; rarely indoors
Winter, low light	0 to 50	0 to 0.25 g	0 to 1 g	0 to 0.5 g	Only under strong grow lights

Why? A level 1/4 teaspoon of water-soluble powder weighs about 1.25 g. Halving the label numbers doubles the grams you need for the same ppm N, which is why two products can give an identical dose with different scoops.

Worked example

Target 100 ppm N with a 24-8-16. Grams per litre = $100 / (24 \times 10) = 0.42$ g per litre, about 1.6 g (1/3 tsp) per US gallon. For a 6 in (15 cm) pot that drinks 500 ml (2 cups), mix a litre and keep the rest.

EC, if you own a meter

Feed water 0.8 to 1.5 mS/cm
Run-off below 2.0 mS/cm
Run-off higher than what went in salts are building: flush, do not feed

Flush routine

- Every 1 to 2 months for regularly fed plants
- Pour 2 to 3 times the pot volume of clean water through
- 6 in (15 cm) pot: about 3 to 4 L (1 gallon)
- Let it drain fully; feed again at the next watering

Which type

Water-soluble most control; best indoors
Slow-release prills 3 to 6 months; cannot switch off
Organic gentle, slow, hard to burn
Granular unpredictable in pots
Foliar spray micronutrient top-up only

Salt signals

- White crust on soil or terracotta rim
- Brown, crispy tips with correct watering
- Wilting in moist soil
- Fix: flush, then resume at maintenance

Before you blame a nutrient

Pale old leaves, interveinal yellowing and brown margins also come from low light and wrong watering. Check soil and light first, feed at maintenance, and give it 3 to 4 weeks. Never a certain diagnosis from a leaf alone.