



PRODUCT KNOWLEDGE · BALANCED NPK

VL-NPK

8-8-6 w/v · liquid foliar supplement · + amino & fulvic per formulation

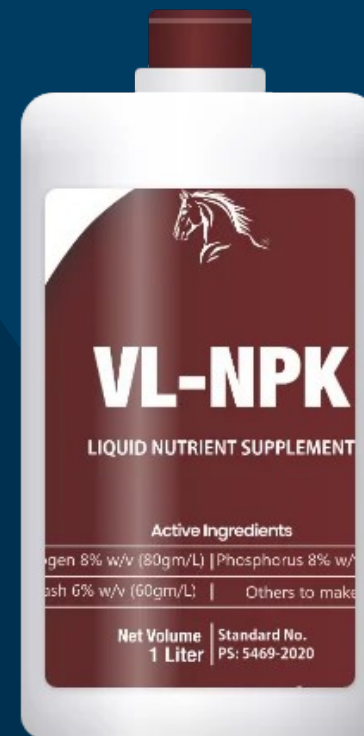
A balanced liquid NPK for the leaf — the top-up that carries a crop through the weeks when the soil cannot deliver fast enough.

PS 5469-2020

Licence CM/L-3131/2024

1 L

Foliar

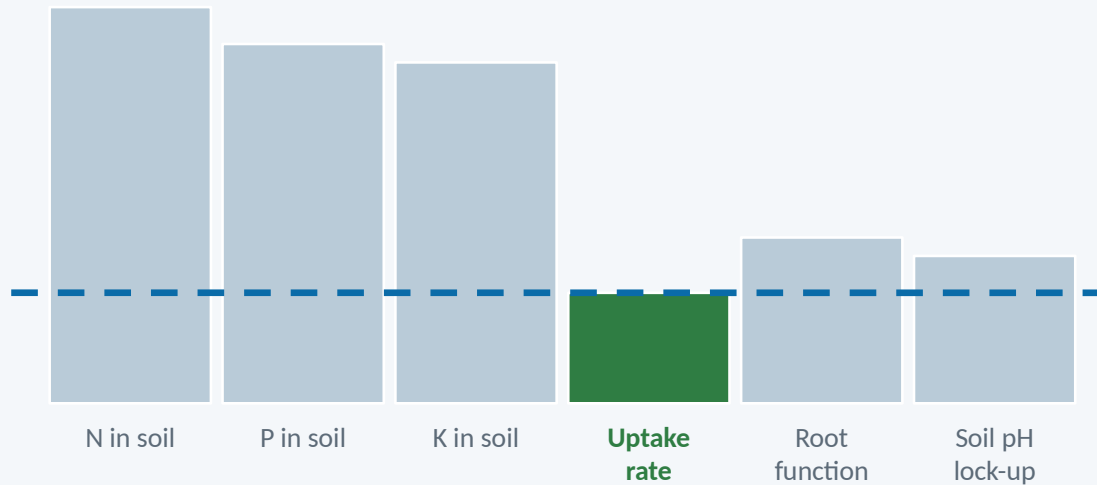


Vital Agri Nutrients (Pvt) Ltd · van.com.pk

For information only. VAN may change a product's composition at any stage for agronomic, efficiency or upgrade reasons.

A soil that has the nutrient is not the same as a crop that has it.

Carl Sprengel set the law out in 1840; Justus von Liebig made it famous. The stave that limits the barrel is the one the plant actually has, not the one the soil test reports.



— the water line — what the crop actually yields

The delivery gap

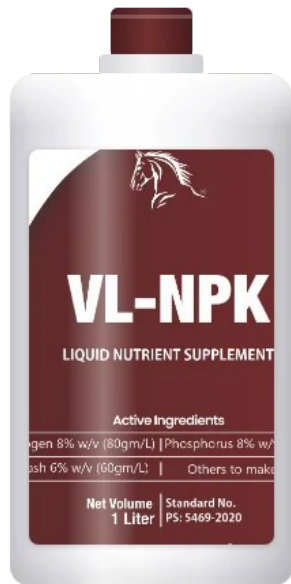
On calcareous ground, in cold soil, in a waterlogged field or in a crop with a damaged root system, the nutrient can be present and still not arrive. A foliar application steps over the soil entirely and puts the nutrient on the surface that will use it.

This is a supplement, not a substitute. If the soil is genuinely short, the correction belongs in the soil programme — a soil test tells you which case you are in.

THE PACK

What is actually in the bottle.

One litre covers one acre in 200 litres of water.



VL-NPK — 1 L

NITROGEN

N 8% w/v (80 g/L)

PHOSPHORUS

P₂O₅ 8% w/v (80 g/L)

POTASH

K₂O 6% w/v (60 g/L)

OTHERS

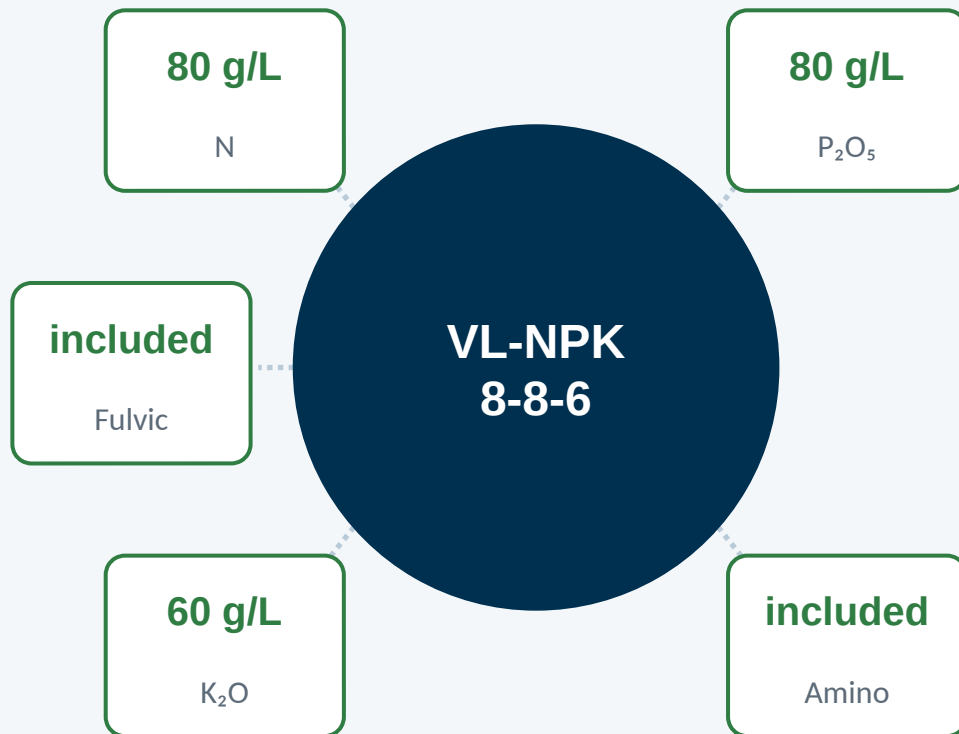
Amino acids and fulvic acid per formulation, to 100%

ROUTE

Foliar — mixable with all agri-chemicals

What the label declares.

As registered under PS 5469-2020 and as published on van.com.pk. Figures are w/v — grams per litre — not the w/w percentages on a solid fertilizer bag.



BASIS

w/v

8% w/v is 80 g in every litre

ROUTE

Foliar

sprayed on the leaf, not applied to the soil

COMPATIBILITY

Mixable

stated as mixable with all agri-chemicals — still jar-test

Three things make a foliar NPK work, and concentration is only one of them.

Getting a nutrient through a leaf cuticle is a different problem from getting it through a root.

1 **Balanced, not lopsided**

8-8-6 is close to even. A foliar carrying only nitrogen pushes vegetative growth and can leave the crop softer; a balanced supplement supports the whole plant rather than one part of it.

2 **Fulvic as the carrier**

Fulvic acid is the smallest and most mobile humic fraction. It chelates cations and helps move them across the leaf surface — which is why it is in a foliar product and not just a soil one.

3 **Amino acids alongside**

Ready-made amino acids save the crop the energy of reducing nitrate to build its own, which matters most in exactly the weeks a foliar is sprayed.

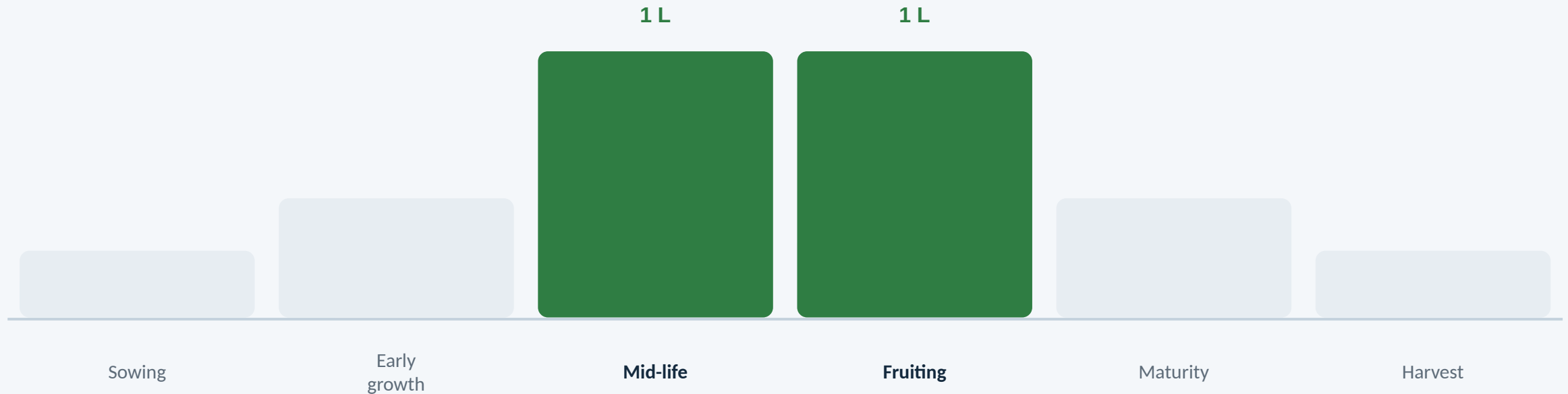
4 **Liquid means uniform**

A liquid diluted into 200 litres of water reaches every plant in the acre at the same concentration. A granular pass reaches the strip the spreader covered.

A foliar spray bypasses soil pH, phosphate fixation and a compromised root system in one step. That is what it is for — not bulk supply.

Not a calendar. Two stages and an event.

VL-NPK is applied by growth stage and by event, not by counting days from sowing.



1 L per acre in 200 L of water — at mid-life, at the fruiting stage, and again whenever a stress event calls for it. Heat, cold, waterlogging, salinity, a chemical knock or a transplant check are all stress events; the spray is the fastest way to put nutrition into a crop whose roots have stopped delivering.

The old day-count rate was an unconfirmed label transcription. Superseded 20 Aug 2026.

The foliar route exists because of the right-hand column.

Established interactions between soil nutrients — after Mulder. These describe how nutrients behave with one another, not how VL-NPK performs.



Works with

Nitrogen improves the uptake of phosphorus and magnesium

Balanced potassium supports the movement of the sugars that nitrogen and phosphorus build

Fulvic acid chelates cations and keeps them available across the leaf surface

Applying the three together avoids creating the imbalance a single-nutrient foliar can



Competes with

Excess calcium suppresses phosphorus, potassium, magnesium, zinc, iron, manganese and boron together — the standing condition of calcareous soil, and the reason soil-applied nutrients underperform

Phosphate is fixed by calcium within days of application on high pH ground — a foliar phosphorus does not meet that soil at all

Excess nitrogen suppresses potassium; excess potassium suppresses calcium, magnesium and boron — which is the argument for a balanced supplement over a single one

Excess phosphorus suppresses zinc, iron and copper — keep the total programme in view, not just this spray

A foliar is the one route that steps over soil chemistry entirely. That is its value and also its limit — the quantities involved are small.

What each part is doing.

Three nutrients and two carriers, each with a distinct job.

1 N — growth and protein

Drives canopy, leaf area and the protein the crop builds

2 P — energy and roots

ATP, root development and the energy transactions behind everything else

3 K — water and transport

Governs water status and moves sugars to grain, boll and fruit

4 Amino acids

Ready-made building blocks — the crop skips the energy cost of making them

5 Fulvic acid

Chelates and carries cations across the leaf surface

6 Uniform coverage

200 litres of water per acre puts the same concentration on every plant

One litre per acre is a correction, not a crop's nitrogen budget.

This is the single most common misunderstanding about foliar NPK, and it is worth being blunt about it.

Soil-applied NPK

The bulk supply. Bags per acre.

- Supplies the quantity the crop actually needs across a season
- Subject to soil pH, fixation, leaching and root health
- Applied at sowing and at defined split stages
- This is the programme — it cannot be replaced by a spray

VL-NPK foliar

The correction. 1 L per acre, at the stages that matter.

- Bypasses soil chemistry entirely — straight to the leaf
- Fast: the response window is days, not weeks
- Small quantities — grams per acre, not kilograms
- For the gap between what the soil holds and what the crop is getting
- And for the stress week, when the roots stop delivering entirely

Sell it as what it is. A grower who replaces a soil programme with a few foliar sprays will be disappointed, and will blame the product.

WHERE IT IS USED

A general rate for every crop, with four carrying published programmes.

VL-NPK is a general foliar supplement — the label rate applies to all field crops and orchards. Four crops carry stage-specific entries in the locked 2025 plans.

Lentil

Mungbean & Mash

Chickpea

Citrus

Wheat

Maize

Cotton

Orchards

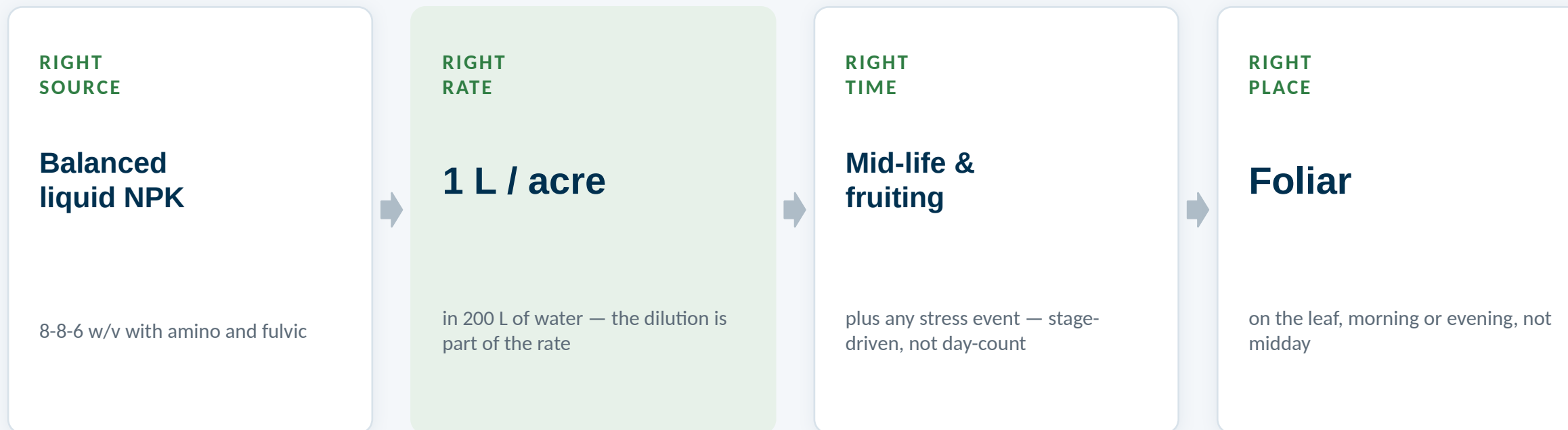
Featured programmes at van.com.pk/crops/; the general rate covers the rest.



The three pulses are a pattern worth noticing — a legume fixes nitrogen but still runs short of phosphorus and potassium at pod fill, and a foliar is the fastest way to answer it.

Right source, right rate, right time, right place.

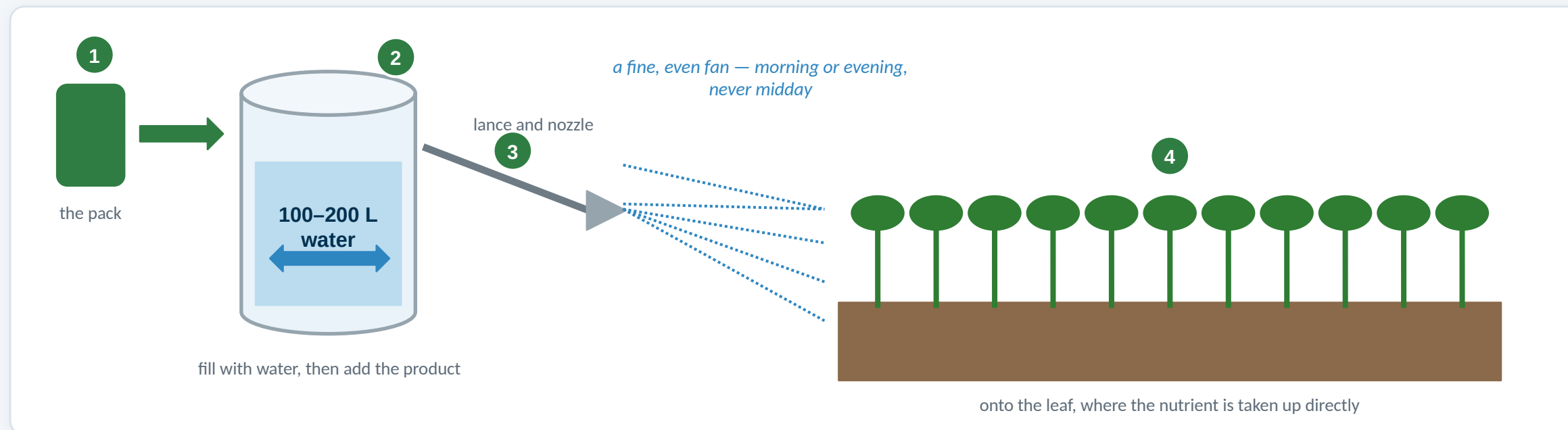
The published doses. VAN publishes a rate and a stage, not a yield promise.



The dilution matters as much as the dose. One litre in 100 litres of water is twice the concentration on the leaf and is how a foliar burn happens.

Water first, product second — never the other way round.

The dilution is part of the rate, not a suggestion.



1 Water first

200 L of clean water in the tank. Always water first, product second — never the other way round.

2 Add and keep agitating

1 L per acre in 200 L of water. A tank that settles sprays the last acre at a different rate from the first.

3 A fine, even fan

Cover the leaf without running off it. Morning or evening — midday is the wrong half of the day.

4 At the right stage

At mid-life, at the fruiting stage, and at a stress event.

Doses are per acre, from VAN agronomy. The dilution is part of the rate: cutting the water to save a pass doubles the concentration on the leaf.

Five things that decide whether it works.

1 Respect the 200 litres

The rate is 1 L in 200 L of water. Cutting the water to save a pass doubles the concentration on the leaf and risks scorch. The dilution is part of the rate, not a suggestion.

2 Read the crop, not the calendar

Mid-life and fruiting are stages, not dates. A late-sown crop reaches them later; a stressed crop may need a spray between them.

3 Spray into the stress, not after it

A stress event is the trigger. Applied a week after the heat has passed, it is treating damage that is already done.

4 Morning or evening

Absorption happens while the droplet is wet. A spray that dries in seconds at midday has been wasted, not absorbed.

5 It supplements — it does not replace

A few litres per acre across a season is not a nitrogen programme. Keep the soil programme intact.

What is behind the bottle.

1

PS 5469-2020

Registered against the Pakistan Standard for the product class.

2

Licence CM/L-3131/2024

PSQCA marks licence, printed on the pack.

3

Tested before it ships

Every batch is tested in VAN's own PNAC-accredited laboratory, ISO/IEC 17025:2017, LAB-336.

4

Certificate on request

Send the batch number off the bottle and VAN will send the certificate of analysis for that batch. Free, no sample, no form.

SOURCES

Where every figure in this deck came from.

Analysis, standard, licence

van.com.pk — N 8% w/v (80 g/L), P₂O₅ 8% w/v (80 g/L), K₂O 6% w/v (60 g/L), others incl. amino and fulvic to 100%; PS 5469-2020, CM/L-3131/2024, 1 L

Rate and timing

VAN, 20 Aug 2026 — 1 L per acre in 200 L of water, at mid-life, at the fruiting stage, and driven by stress events. Supersedes the unconfirmed “20–25 DAS then 15-day intervals” label transcription, which was removed from the site the same day

Featured crop programmes

VAN locked crop nutrition plans, 2025 set — lentil, mungbean & mash, chickpea, citrus

Foliar uptake and fulvic transport

Established plant nutrition — cuticular uptake and chelate-assisted transport; not manufacturer-specific

Nutrient interactions

After Mulder’s chart — established relationships

Law of the minimum

Carl Sprengel (1840), popularised by Justus von Liebig

605 Al-Hafeez Heights, Gulberg, Lahore 54660 · van.com.pk · WhatsApp +92 300 5003041



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