

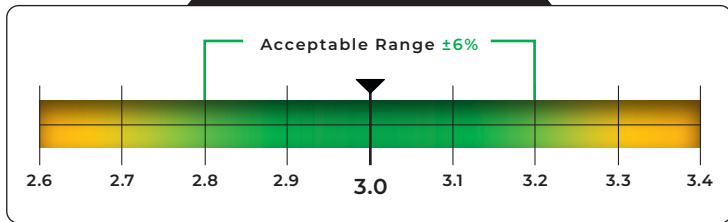


Expected EC Tolerances

Mixing concentrate tanks is not highly accurate due to the reasons listed. Our batch testing validates that the mineral balance is **always within our established ranges** and regulatory tolerance. When mixed at any concentration, this is considered a **“reference solution”** meaning that at any EC or dosage rate, the mineral ratio is consistent.

Plants adapt to small variations in EC as they do variations in substrate pH. **Plus or minus 6% is acceptable** and will not impact fertilizer performance.

EXAMPLE: 3.0 EC TARGET



NOTE: A stock concentrate should always be validated by hand mixing a small batch or running through a dosing system to ensure the output to the crop is within the desired range.

What can affect output EC?

Containers and measuring devices

- a. Surface tension
- b. Inaccurate line markings
- c. Inaccurate filling

±5%

Bag weight variations

- a. Absorbing moisture or dry out can vary bag weight
- b. Filling rate can vary slightly

±3%

Meter calibration

- a. Water temperature impacts meter accuracy
- b. Old or dirty probes
- c. Manufacturer variability

±5%

Injector settings

- a. Upper and lower ranges have different variability

±5%

Mixing procedure

- a. See Troubleshooting Procedure

-10%

PRO Troubleshooting Procedure

STEP 1

Did you mix a full pack (bag or pouch)?

YES

NO

Mixing partial bags may result in variations in EC and in mineral ratios.

RECOMMENDATION

Use a smaller pouch and mix entire contents

STEP 2

Did you top off your stock tank to target volume after adding fertilizer?

YES

NO

Adding fertilizer to complete volume results in a more dilute solution.

RECOMMENDATION

Next time mix using the proper procedure. This time simply dose at a higher rate to hit target EC

STEP 3

Have you validated the product is fully dissolved?

YES

NO

Check bottom of tank visually or use a probe to feel for undissolved fertilizer

RECOMMENDATION

Heat water, use agitation pump, increase mixing time, or mix at a lower rate.

STEP 4

Have you manually validated the reference solution?

YES

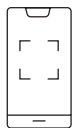
NO

Follow Concentrate Validation Procedure



NOTE: Dissolving can take up to 60 minutes, longer if hand mixing or with cold water source.

SCAN or TAP



If EC is still outside Expected EC Tolerance, Report to Athena®



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