



CONFIDENTIAL

2022 REPLICATED FIELD TRIAL • TRIAL RESULTS REPORT

Corn Liquid Nutrition Programs

Five treatment programs, four replications, one season of data — conducted by Agricenter International, Memphis, Tennessee.

+23.9 bu/ac

Best program gain over the untreated check

4 of 4

AgriTec programs that significantly out-yielded the check

P = 0.023

Statistically significant yield response (LSD, P = .05)



Corn Liquid Nutrition Programs

Agricenter International · Memphis, Tennessee · Dent corn DK64-69 · Planted May 31, 2022 · Harvested Nov 10, 2022

CONFIDENTIAL · ARM 2023.0 TRIAL RECORD

All four AgriTec liquid programs out-yielded the untreated check by 18–24 bu/ac — a statistically significant response ($P = 0.023$).

Randomized complete block, 4 replications, 5 treatments, 20 plots. Yields corrected to 15.5% moisture. Means separated by LSD at $P = .05$.**+23.9 bu/ac**Best program gain over the check
(Nitromaxx + Calcium, 166.0 vs
142.1 bu)**+16.8%**Relative yield increase of the top
program vs untreated**4 of 4**Treated programs that significantly
beat the check (LSD = 15.1 bu)**19.5 gal/ac**Lowest total product rate to reach a
significant gain (+22.5 bu, Trt 5)

Grain yield by program

bu/ac at 15.5% moisture · mean of 4 replications · harvested 11/10/2022

Nitromaxx + Calcium

Trt 2 · 24.5 gal/ac season total

166.0^a
+23.9 vs check**25-0-0 + Calcium**

Trt 3 · 24.5 gal/ac season total

165.6^a
+23.5 vs check**Nitromaxx + 0-0-30**

Trt 5 · 19.5 gal/ac · ends at V8

164.6^a
+22.5 vs check**Nitromaxx 6 gal PRE + Ca**

Trt 4 · 25.5 gal/ac season total

160.1^a
+18.0 vs check**Untreated check**

Trt 1 · no foliar / liquid program

142.1^b

0 30 60 90 120 150 180 bu/ac

LSD ($P = .05$) = 15.12 bu — bars must differ by at least this much to be statistically differentBars sharing a letter do not differ significantly (LSD, $P = .05$). Treatment $P(F) = 0.0225$ · CV = 6.15% · trial grand mean 159.7 bu/ac. Source: ARM 2023.0 AOV means table, 2022 AgriTec Corn, Agricenter International.**The response is real grain**Harvest weight rose from 27.7 to 32.1 lb/plot ($P = 0.013$) while moisture and test weight held steady — the gain isn't a moisture artifact.**Programs finished in a pack**

The four treated programs were statistically equivalent to each other; every one of them separated cleanly from the untreated check.

Efficiency note

Trt 5 delivered +22.5 bu with the lightest program — 19.5 gal/ac and no applications after V8.

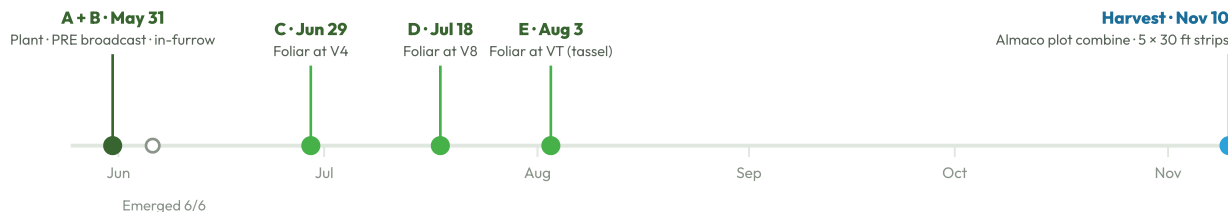
WHAT WAS APPLIED

Five programs, five application windows

Each program combined a broadcast PRE pass at planting, an in-furrow starter, and in-season foliar passes timed to crop stage. All foliar passes were applied in 15 gal/ac of water; in-furrow at 5 gal/ac.

2022 season timeline

Application windows A–E with crop stage at each pass



Program	A • PRE (5/31)	B • In-furrow (5/31)	C • V4 (6/29)	D • V8 (7/18)	E • VT (8/3)	Season total	Yield bu/ac
1 • Untreated check No liquid program	—	—	—	—	—	—	142.1 b
2 • Nitromaxx + Calcium Full-season foliar N program	Calcium 2 gal Nitromaxx 5 gal	3-18-18 • 5 gal	Nitromaxx 4 gal	Nitromaxx 4 gal	Nitromaxx 4 gal Foliar ACT 0.5 gal	24.5 gal	166.0 a
3 • 25-0-0 + Calcium Same structure, 25-0-0 N source	Calcium 2 gal 25-0-0 • 5 gal	3-18-18 • 5 gal	25-0-0 • 4 gal	25-0-0 • 4 gal	25-0-0 • 4 gal Foliar ACT 0.5 gal	24.5 gal	165.6 a
4 • Nitromaxx 6 gal PRE + Ca Heavier PRE nitrogen load	Calcium 2 gal Nitromaxx 6 gal	3-18-18 • 5 gal	Nitromaxx 4 gal	Nitromaxx 4 gal	Nitromaxx 4 gal Foliar ACT 0.5 gal	25.5 gal	160.1 a
5 • Nitromaxx + 0-0-30 K up front, no Ca, ends at V8	Nitromaxx 5 gal 3-18-18 • 5 gal 0-0-30 • 1.5 gal	—	Nitromaxx 4 gal	Nitromaxx 4 gal	—	19.5 gal	164.6 a

Green chips — nitrogen / calcium products

Blue chips — starter NPK, potassium & biostimulant products

All rates in gal/ac of product • letters follow LSD grouping at P = .05

FULL ASSESSMENT DATA

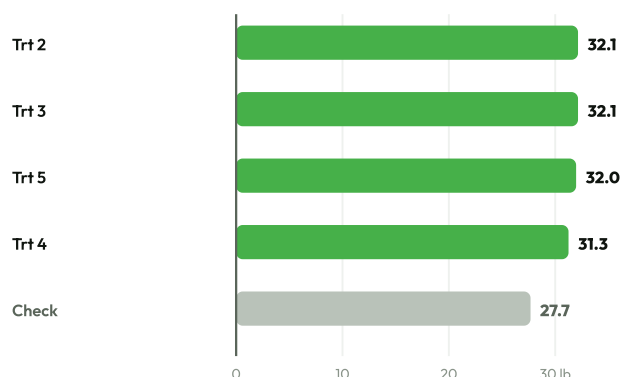
Every measurement, every treatment

Stand counts taken June 14 (8 days after emergence); grain measurements at harvest, November 10. Values are means of 4 replications. Letters mark LSD groupings at P = .05 — shown only where the treatment effect was significant.

Treatment	Stand plants/ac · 6/14	Moisture % at harvest	Harvest weight lb/plot	Test weight lb/bu	Yield bu/ac @ 15.5%
1 · Untreated check	30,782	16.3	27.65 b	56.8	142.1 b
2 · Nitromaxx + Calcium	31,508	15.6	32.06 a	56.0	166.0 a
3 · 25-0-0 + Calcium	31,073	15.9	32.08 a	56.4	165.6 a
4 · Nitromaxx 6 gal PRE + Ca	30,782	16.6	31.26 a	56.4	160.1 a
5 · Nitromaxx + 0-0-30	30,492	16.1	31.96 a	56.1	164.6 a
LSD (P = .05)	1,014	1.90	2.62	1.31	15.12
CV %	2.1	7.6	5.5	1.5	6.2
Treatment P(F)	0.304	0.833	0.013	0.712	0.023

Harvest weight tracked yield

lb of grain per 5 × 30 ft harvest strip · mean of 4 reps



Treatment P(F) = 0.013 · LSD = 2.62 lb · every program differs from check

What didn't move — and why that matters

Measures with no significant treatment effect (P > .05)

Plant stand

30,492–31,508 plants/ac across all treatments

P = 0.30 · NS

Grain moisture

15.6–16.6% at harvest — no drydown penalty

P = 0.83 · NS

Test weight

56.0–56.8 lb/bu — grain quality held

P = 0.71 · NS

Equal stands mean every plot started from the same plant population — so the yield separation came from what the programs did for the crop, not from emergence differences. Flat moisture and test weight confirm the extra bushels are sound, dry grain rather than a wet-grain artifact.

HOW THE TRIAL WAS RUN

Trial design & application record

Conducted by Agricenter International, Memphis, Tennessee, under ARM 2023.0 trial management. Not conducted under GLP/GEP.

Site

Location **Agricenter International, Memphis TN 38120**
 County / climate zone **Shelby County · EPPO South East**
 Trial status **Established · Trial year 2022**
 Soil moisture at planting **Excellent · 73°F soil**

Crop & planting

Crop / variety **Dent corn (Zea mays indentata) · DK64-69**
 Planted **May 31, 2022 · 34,000 seeds/ac**
 Depth / rows **1.5 in · 4 rows per plot · 30 in spacing**
 Emergence **June 6, 2022**

Design

Layout **Randomized complete block (RCB)**
 Size **5 treatments × 4 reps = 20 plots**
 Plot dimensions **10 × 30 ft (300 ft² treated)**
 Statistics **AOV + LSD mean separation at P = .05**

Harvest

Date **November 10, 2022 (157 days after emergence)**
 Equipment **Almaco plot combine**
 Harvested area **5 × 30 ft strip per plot**
 Yield basis **56 lb bushels corrected to 15.5% moisture**

Conditions at each application

All foliar passes: CO₂ backpack sprayer, 8002 flat-fan nozzles, 30 PSI, 15 gal/ac water carrier. In-furrow (B): planter-mounted rig, orifice nozzles, 25 PSI, 5 gal/ac.

Pass	Date	Crop stage	Air temp	Humidity	Wind	Soil temp	Soil moisture
A · PRE broadcast	5/31/2022	Pre-emerge	90°F	47%	3 mph SW	73°F	Excellent
B · In-furrow	5/31/2022	At planting	90°F	47%	3 mph SW	73°F	Excellent
C · Foliar	6/29/2022	V4 · 23 days after emergence	88°F	51%	2 mph S	77°F	Good
D · Foliar	7/18/2022	V8 · 42 days after emergence	98°F	51%	4 mph SW	80°F	Good
E · Foliar	8/3/2022	VT · 58 days after emergence	95°F	35%	2 mph SW	81°F	Excellent

Want to see what a program like this would look like on your soil?

Programs in this trial were built the same way we build them for growers — starting from a soil test, not a sales sheet.

[Request a soil test · agritecint.com](https://agritecint.com)