AGROSOURCE GROUP EVIDENCE REVIEW

Phyto C3 agricultural evidence review

What the tomato cucumber and vineyard sources can support

Read the study before the headline

The five sources reviewed here cover processing tomatoes, greenhouse cucumbers and wine grapes. They differ in design, formulation and reporting detail. This review separates the reported observations from questions that remain when applying them elsewhere. It is an original Agrosource synthesis, not a reproduction of the manufacturer documents or a new efficacy study. None of these agricultural sources is a golf-course turf trial.

Processing tomatoes in Spain

A CICYTEX technical report describes a 2022 outdoor processing-tomato experiment at Finca La Orden in Extremadura. Standard Phyto-C3, an organic version and an untreated control were compared using randomized blocks with four repetitions. Fertilization was the same across treatments. The report presents higher commercial red-tomato production in both product treatments than in the control, with significant differences. It also reports no significant treatment differences for several fruit-quality measures, including soluble solids, pH and citric acidity. Inspection of irrigation tape found most residue in the control and least in the organic treatment. [1]

Why the starting conditions matter

The same report identifies initial soil-nitrogen differences before the first product application. Those differences cannot be credited to treatment. Read the crop response alongside the baseline heterogeneity and the full experimental methods. The organic treatment's historical name does not establish that it is identical to today's PC3 Organic formulation. [1]

Salad cucumber in Oman

The manufacturer-hosted case presentation describes 850 cucumber plants in a single greenhouse tunnel at Al-Hayema, with a reported trial period of 25 November 2022 to 10 March 2023. It reports no noticeable growth difference during germination, then favorable flowering, growth and harvest observations. The harvest comparison lists 2,970 kg for the control and 3,350 kg with Phyto-C3. The slides do not provide a randomized replicated design or statistical analysis. [2] This makes the case useful as a site example, while leaving uncertainty about repeatability and the contribution of other greenhouse conditions.

A practical reading question

For either crop source, ask whether the crop, water, soil, formulation and operating conditions resemble the proposed use. Preserve results that did not change as well as favorable results. An evidence review is more useful when it describes the boundaries of an observation rather than selecting only the strongest headline.

Phyto C3 agricultural evidence review

Oakville vineyard observations

The summary attributed to Prof. S. Kaan Kurtural of UC Davis covers work at Oakville Station using standard and organic formulations. It reports irrigation-delivery and grapevine observations, including a 2021 young-Cabernet-Sauvignon comparison of an untreated control with two organic-product rates. Berry mass and yield responded in that comparison; cluster weight did not differ significantly. Its projected water and pumping-energy savings depend on site assumptions, measured water demand and distribution uniformity. These are conditional calculations, not portable savings promises. [3]

The separate irrigation presentation

Kurtural's vineyard-system presentation combines irrigation design and maintenance principles with an Oakville organic-product evaluation. The dosage comparison used four replicated blocks, with 20 plants per replicate and treatment. It places product evaluation within a broader system-management discussion, including flow, pressure and distribution uniformity. [4] The practical lesson is to assess delivery conditions explicitly; a product treatment does not remove the need to understand the system being tested.

Do not merge inconsistent figures

The Oakville summary gives distribution uniformity of 0.70 before cleaning and 0.95 afterward. The separate presentation lists 0.74 and 0.92. [3, 4] Both describe improvement, but the difference should remain visible. Without a reconciliation of methods or source versions, do not combine the figures or treat them as interchangeable inputs to a savings calculation.

Young grapevines and AMF

Bio-Organic Catalyst prepared its AMF presentation from Kurtural's preliminary work with young Merlot vines at the UC Davis Oakville vineyard. It concerns the first productive year, comparing irrigation amounts during the 2020 season. The presentation reports higher arbuscular mycorrhizal fungal colonization with Phyto-C3, together with selected growth and physiological observations. [5] It is a manufacturer-prepared summary of preliminary vineyard work. Root colonization, vine physiology and harvest outcomes are different endpoints; none can automatically substitute for a turf-performance measure.

Formulation and setting remain part of the result

The vineyard materials include both regular and historically named organic products. Match any proposed inference to the formulation actually tested. Do not present these papers as evidence that two current products are interchangeable, or as a golf-course endorsement.

AGROSOURCE GROUP EVIDENCE REVIEW

Phyto C3 agricultural evidence review

Questions for an evidence led evaluation

The checklist below is Agrosource's proposed framework for discussing a new evaluation. It is not a tested treatment protocol and does not prescribe rates or changes to a fertility program.

Define the decision

Write down what would make a program worthwhile at this site and what would count as an unacceptable result. Choose a primary outcome and a review period. Keep product identity, current label, application method and relevant approvals together. A vague aim such as better soil health is difficult to assess without deciding what will actually be measured.

Make comparisons interpretable

Ask the adviser how an untreated or usual-practice comparison, comparable starting conditions and repeated measurements could be incorporated. Record irrigation, fertilization, weather and maintenance alongside the outcome. If several practices change together, state that limitation when discussing the result. Decide in advance how missing observations and unusual events will be handled.

Separate measurement from projection

Report observed delivery, crop or quality measurements separately from estimated savings. State the water and energy prices, volumes and other assumptions behind financial calculations. Consider the complete program cost before discussing a return. Preserve the original units and distinguish absolute changes from percentages. Where a source contains inconsistent values, seek clarification instead of selecting whichever value produces the strongest claim.

Use the conclusion at the right scale

A local result may support a local decision. Broader claims require evidence across appropriate sites and conditions. Manufacturer product information can help frame a question, while a study's methods determine how confidently its results can answer it. For golf and turf applications, ask specifically for evidence in the relevant turf, root-zone and irrigation setting.

Source record

All five sources are hosted by Bio-Organic Catalyst. [1] CICYTEX, 2022 technical report on agronomic and irrigation effects of Phyto-C3 products, PDF pp. 3-5 and 21-32. [2] Agriculture Case Study, Oman, PDF pp. 5-8. [3] Summary of Observations using Phyto-C3, attributed to Prof. S. Kaan Kurtural, UC Davis, PDF pp. 1-4. [4] Maintaining and Operating Resource Efficient Irrigation Systems for Vineyards, Kaan Kurtural, PDF pp. 22-28. [5] Increasing Grapevine Health by Increasing AMF, manufacturer-prepared presentation, PDF pp. 2-6. Dates describe study periods where verified; publication dates were not established. Page references count PDF pages from 1. Review prepared 13 October 2026.