PLANT DOCTOR 405 • FIELD ASSESSMENT

Module 2 Review: Farmers Market Interrogation

Course Track: Phase 1 — Sourcing, Identification & Market Literacy

Evaluation: 10 Diagnostic Inquiries • Vendor Auditing & Physical Forensics

Instructions: Apply Module 2 market auditing principles to each vendor scenario. Choose the single most scientifically and culinarily accurate deduction.

Field Audit Inquiries (Questions 01–10)

01. What economic mechanism defines the operation of a farmers market produce repacker?

A) Direct-to-consumer bio-intensive farm sales.
B) Arbitraging wholesale auction surplus into farm decor.
C) Community-supported regenerative cooperative pooling.
D) State-subsidized heirloom seed propagation.

02. A vendor stall displays thirty slicing cucumbers with identical wall thickness, cloned curves, and identical 2.25-inch diameters. This indicates:

A) Living-soil mycelial networks evening out growth.
B) Mechanical grading and sorting on an industrial packing line.
C) Hand pollination conducted inside high-tech hoop houses.
D) Uniform microbial root colonization via compost tea.

03. In temperate zones (e.g., Oklahoma), a vendor offers field-grown beefsteak tomatoes in early May and sweetcorn in November without hoop houses. What is the diagnosis?

A) Deep geothermal root-zone trench heating.
B) Photoperiod and temperature evasion via out-of-state transit.
C) Cold-hardy heirloom nightshade genetics.
D) Micro-climate manipulation via heavy volcanic rock dust.

04. When inspecting the shoulder of a nectarine or base of an eggplant at a farm stall, you spot a faint oval adhesive halo. This proves:

A) Natural epicuticular wax crystallization.
B) The removal of a commercial Price Look-Up (PLU) sticker.
C) Beneficial aphid honeydew dried by ambient wind.
D) Residue from certified organic field tagging bands.

05. How can an investigator physically distinguish an industrial machine-cut stem from a living-soil hand-harvested stem?

A) Machine cuts leave ragged tears; hand snips leave smooth shears.
B) Machine cuts are sheared flush; hand snips show angles & sap collars.
C) Machine cuts ooze white latex; hand cuts seal immediately.
D) Hand snips create identical, caliper-calibrated stem lengths.

06. You inspect a table of summer squash and find shriveled, gray, inward-sunken pedicels (stems). What post-harvest timeline does this expose?

A) Harvested that morning before morning dew evaporated.
B) Cut weeks prior and maintained under commercial cold storage.
C) High calcium density preventing sap crystallization.
D) Rapid dehydration from extreme field sugar concentrations.

07. You ask: "What specifically drives your soil fertility program?" Which vendor response indicates an authentic living-soil grower?

A) "We just use all-natural organic plant food and good dirt."
B) "Cover crops, broadforking, worm castings, and basalt rock dust."
C) "Whatever rich organic compost the nursery delivers in bulk."
D) "We spray standard liquid blue plant feed every Thursday."

08. When asked the exact day and hour greens were cut, a repacker typically falters by:

A) Stating: "Cut at 5:30 AM yesterday before heat stress set in."
B) Offering vague answers like: "Everything came in fresh this week."
C) Explaining their root-pull schedule vs. foliar-cut schedule.
D) Providing precise log sheets detailing bed succession numbers.

Module 2 Answer Key & Agronomic Explanations

01 • B **Wholesale Arbitrage Model**
Repackers buy surplus or off-grade commodity flats at regional auctions for pennies on the dollar, decant them from corporate cardboard into rustic bins, and charge premium local farm prices without ever cultivating soil.

02 • B **Biological Variance vs. Industrial Sizing**
Living soil and variable field micro-climates inherently produce biological variance in fruit diameter and shape. Perfect cosmetic uniformity across dozens of items is the unmistakable signature of mechanized sorting lines.

03 • B **Geographical Seasonality & Thermal Physics**
Living-soil crops are strictly governed by seasonal soil temperatures and day-length photoperiods. Out-of-season field produce without heated greenhouses exposes long-distance transit from industrial growing regions (e.g., Mexico, CA, FL).

04 • B **The Price Look-Up (PLU) Adhesive Halo**
Commodity packing houses mechanically apply PLU stickers. Repackers meticulously peel them off prior to setting up market tables, leaving behind telltale octagonal/oval adhesive films, paper fibers, or light-blocked skin halos.

05 • B **Harvest Cut Forensics**
Mechanized harvesters shear stems flush and flat against fruit crowns. In contrast, genuine field harvesting using hand snips leaves angled cuts, variable lengths, and intact, moist physiological sap collars around the calyx.

06 • B **Dehydrated Pedicels as Storage Markers**
Stems on morning-cut squash or melons are pliable, turgid, and green. A gray, inward-shriveled pedicel indicates the vascular sap line dried out during prolonged cold-storage holding weeks before the vendor brought it to the stall.

07 • B **Technical Agronomic Fluency**
Repackers rely on vague marketing buzzwords ("all-natural," "rich compost"). Real growers speak in precise agronomic specifics: cover crop species, fungal inoculation, broadfork aeration, worm castings, and paramagnetic rock dust.

08 • B **Operational Harvest Timelines**
Growers manage harvest schedules around heat-stress windows (e.g., harvesting delicate greens before 7:00 AM). Repackers lack direct operational logs, offering generic non-answers like "everything came in fresh this week."

09 • A **Osmotic Salt Water Bloating**
Synthetic salts create high root-zone osmotic pressure, forcing plants to rapidly drink excess water. This bloats cells, dilutes Brix (down to 2°–4° Bx), starves secondary aromatic terpenes, and creates produce that weeps into your skillet.

10 • B **Volume Scaling & Decay Concealment**
Real market smallholders bring finite harvests with geological soil clinging to intact roots and tops attached. Resellers pull endless wax-coated boxes from white trucks, removing tops to hide storage rot and flume-washing roots to disguise source origin.

MODULE 2 MASTERY TAKEAWAY

A farmers market canopy does not grant immunity from industrial supply chains. True food sovereignty requires moving past pastoral aesthetics and chalkboards. By inspecting pedicel hydration, hunting PLU sticker adhesive, and asking pointed agronomic questions, you instantly distinguish genuine biological growers from retail repackers.