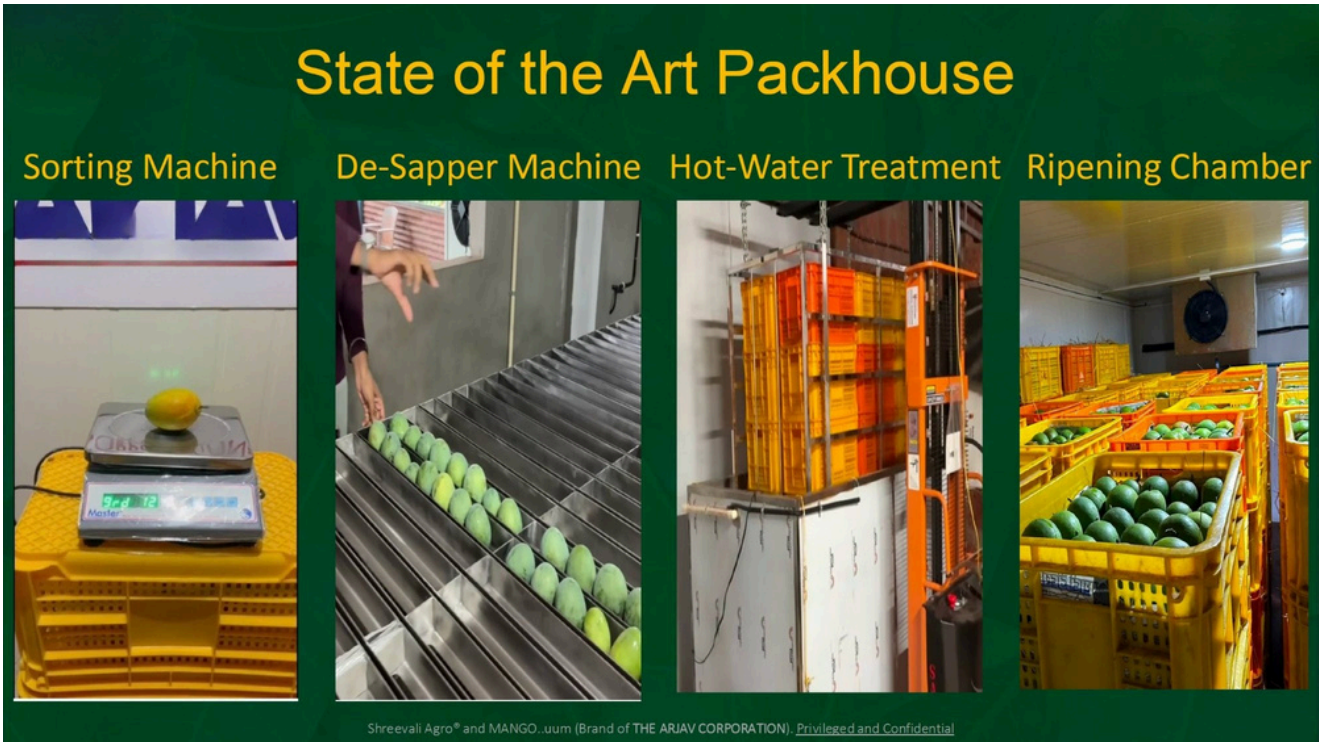
Nectar Nexus Overseas — Quality Commitment (VHT Markets)

Understanding What Went Wrong — And What We Do Differently

The images shared with us tella clear story of a post-harvest handling chain thathad gaps.At Nectar Nexus Overseas we have studied each disorder carefully — and we have a specific, process-driven response to every one of them. We do not promise to eliminate all risk, but we commit to owning every step that is within our control — and being transparent about what is not.

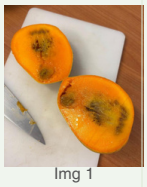
Our State-of-the-Art Packhouse



Sorting Machine | De-Sapper Machine | Hot-Water Treatment Plant | Ripening Chamber

Disorder-by-Disorder: Our Commitment

PHYSIOLOGICAL DISORDER



Img 1

Spongy Tissue Disorder

Physiological — invisible externally | Alphonso most susceptible

Physiological

Farm sourcing only from pre-qualified farms: We source Alphonso exclusively from farms with documented low spongy tissue history. No open-market aggregators — farm origin is always known and traceable.

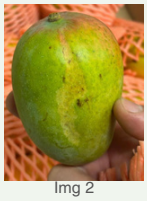
Maturity index at intake: We accept fruit only at the correct dry matter % and TSS (Brix) range. Over-mature fruit has higher disorder risk and is rejected at the farm gate.

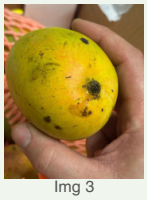
Mandatory destructive cut-test: We cut-test a minimum 5% sample of every incoming lot. Any lot with more than 3% incidence is rejected entirely — not graded out, rejected.

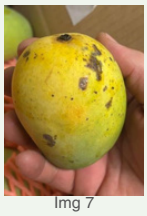
✓ Our commitment: No Alphonso lot ships from Our without a cut-test clearance. This is non-negotiable.

Honest note: Spongy tissue develops in the orchard — no post-harvest treatment can reverse it. Our protection is strict farm sourcing + cut-test at intake. We cannot eliminate risk to zero, but we ensure it is caught before it ships.

FUNGAL DISEASE


Img 2


Img 3


Img 7

Anthracnose

Colletotrichum gloeosporioides — latent on green fruit, activates at ripening

Fungal

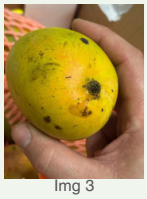
Vapour Heat Treatment (VHT) + HWT — dual benefit: As part of our VHT protocol for export, fruit first undergoes Hot Water Treatment (HWT) followed by Vapour Heat Treatment — where the fruit core is raised to 47°C and held for 15–20 minutes. This treats both anthracnose and stem end rot simultaneously — one process, dual benefit.

Pre-cooling — same day: Fruit is brought to 13°C within 6–8 hours of harvest. We do not leave fruit at ambient temperature overnight. Our bigger farms are equipped with farm-level sheds with industrial fans which act as pre-coolers.

Unbroken cold chain: We use refrigerated transport at every leg, maintaining cold chain integrity from packhouse to port.

Zero-tolerance visual grading: Any fruit showing pre-harvest anthracnose spots is rejected at the grading belt — not downgraded, rejected. Spotted green fruit carries advanced latent infection.

✓ Our commitment: Irradiation treatment + HWT + cold chain care for every consignment. We can use data-loggers (additional cost) and if a temperature exceedance is recorded in the logger, we flag it proactively.


Img 3

StemEndRot

Lasiodiplodia theobromae — enters via cut stem, activates at ripening

Fungal

Stem length standard — enforced: We specify and enforce a maximum 2 cm clean stem on every fruit. Torn or short-stem fruit is rejected at intake. A broken stem is an open infection highway.

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✓ Our commitment: Stem length compliance is checked at the packing line. Every fruit undergoes HWT followed by VHT as part of the export protocol — no exceptions.

SAP BURN


Img 5


Img 8

Sap Burn — at harvest and intransit

Caustic latex chemical injury — harvest mishandling and broken stems in transit

Post-harvest

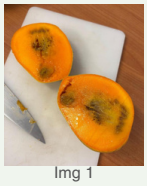
Inversion immediately at harvest: Our harvest SOPs require fruit to be inverted stem-down within seconds of being picked. Harvest supervisors enforce this on every team.

Dedicated De-sapper Machine: We use a mechanical de-sapper machine with scissors that cuts the stem precisely, then a conveyor carries each mango until all sap naturally seeps out completely before the fruit moves to the next stage.

Bleed test before packing: Every fruit is individually checked for residual sap flow before entering the packing line. Fruit that still bleeds is set aside — it does not get packed.

✓ Our commitment: Sap burn is 100% a handling process failure. We own this fully. Our field-to-packhouse SOP was specifically designed to eliminate it at every step.

VHT-INDUCED INTERNAL DISORDER


Img 1

Flesh Cavity with White Patches (FCWP)

Directly caused by VHT — starch hydrolysis disrupted by heat in less-mature fruit

VHT-Induced

What it is: When fruit is not at optimal maturity at time of VHT, the heat disrupts starch hydrolysis in the flesh — leaving white, tough, starchy cavities near the seed. This is a known, documented risk of VHT — not a handling failure.

DMC-based maturity sorting before VHT: We measure the Dry Matter Content (DMC) of every harvest batch using a handheld NIR device. Fruit below 15% DMC is sorted out and not sent for VHT — research confirms this is the primary trigger threshold for FCWP.

Pre-conditioning at 37°C before VHT: We hold fruit at 37°C for 12 hours before VHT. This initiates starch hydrolysis naturally before the main heat treatment — significantly reducing FCWP incidence, particularly in early-season fruit.

Uniform fruit size in VHT batches: Smaller fruit heat faster and get over-exposed during VHT. We grade by size before treatment to ensure uniform heat penetration across the batch — using correctly-sized fruit as the temperature probe.

Immediate cooling to 13–15°C post-VHT: VHT accelerates ripening significantly. Fruit is cooled immediately after treatment to slow this process and stabilise internal condition.

✓ Our commitment: FCWP is a real, science-backed risk of VHT. We do not hide this. Our response is maturity-indexed sourcing, NIR-based sorting, pre-conditioning, and size-uniform batching — the four evidence-based interventions that directly reduce FCWP incidence.

Honest note: No exporter can guarantee zero FCWP — it is an inherent risk of mandatory VHT. What we can guarantee is that every step in our process is designed to minimise it. We share this openly because an informed importer is a long-term partner.

MECHANICAL INJURY


Img 4


Img 6

Cut / ScratchInjury

Physical damage — harvesting tools, thorns, branch contact

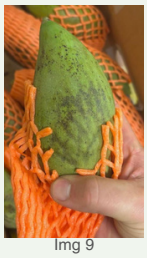
Mechanical

Trained harvest teams — gloves mandatory: All harvest workers use cotton gloves. Smooth-edged clippers are standard. No knives or sickles — these are the primary cause of cut injuries seen in Image 4.

Zero-tolerance grading: Any fruit with a cut, deep scratch, or abrasion is rejected at the grading belt. Wounds are direct anthracnose entry points and will rot in transit.

Packhouse surface audit — monthly: We inspect all conveyor belts, rollers, and packing tables for sharp edges. A scratch picked up on the packing line is our failure to own.

✓ Our commitment: Scratched or cut fruit will not pass our grading line. We track scratch rejection rates per farm — high rates trigger immediate corrective action to the supplier.


Img 9


Img 10

Foam Net Compression Imprint

Stacking pressure damage — upper box weight embosses foam net pattern onto fruit skin

Mechanical

Double-wall corrugated boxes — burst-strength certified: We specify and test box burst strength before every season. Weak boxes are rejected before entering our packhouse.

8-layer stack limit enforced at our facility and loading: We enforce a maximum 8-layer stack in our cold room and during container loading. Correct stacking at the point of loading is our responsibility — and we own it.

✓ Our commitment: Fruit leaves our facility correctly stacked in certified boxes. Box spec sheets are available to you on request.

Honest note: Once the container is in transit, stacking inside is outside our direct control. We will not promise otherwise. What we do guarantee is that every consignment leaves us correctly packed — and we provide full documentation for freight insurance claims if transit damage occurs.

Summary: Nectar Nexus — Non-Negotiable Commitments

HWT + Vapour Heat Treatment Protocol	HWT followed by VHT (47°C / 15–20 min) — mandatory phytosanitary treatment for Japan, NZ & Russia
Unbroken Cold Chain	Temperature loggers in every consignment — data shared with you on delivery
Mandatory Cut-Test	Every Alphonso lot cut-tested at intake — no shipment without clearance
Mechanical De-sapper + Bleed Test	De-sapper machine ensures complete sap removal; bleed test before every fruit is packed
Max 2 cm Stem Standard	Enforced at intake and packing line — short or torn stems rejected
NIR-Based DMC Maturity Sorting	Fruit below 15% dry matter content sorted out before VHT — primary FCWP prevention measure
Pre-VHT Conditioning at 37°C	12-hour pre-conditioning initiates starch hydrolysis — reduces FCWP incidence in early-season fruit
Pre-qualified Farm Sourcing	Traceable origin, maturity-index verified, low disorder-history farms only
Zero-Tolerance Grading Line	No cut, scratch, spotted or sap-burned fruit passes our grading belt
Certified Box + 8-Layer Stack Limit	Burst-strength certified boxes; max 8-layer stacking enforced at our facility

What We Honestly Do Not Promise

Once a container leaves our facility, handling at ports, during air transit, and at last-mile delivery is outside our operational control. We will not promise zero transit damage — that would be dishonest. What we do instead: we pack to the highest standard, provide full box-spec documentation, include temperature loggers, and photograph container loading. This gives you complete evidence for freight insurance claims if transit damage occurs. We believe an honest supplier who tells you what they cannot control is more valuable than one who promises everything and delivers excuses.