



PUMPKIN LOADS
– BEST HANDLING PRACTICE
TO PREVENT MOLD–

DURING TRANSIT

Same Day Deliveries are fine and can run strait through. Any loads that go overnight, here are the best handling instructions:

Reefer:

- Set reefer at 60°F continuous run.
- **Fresh-air vents closed** (pumpkins don't need exchange; it wastes capacity and can add moisture).

Dry Van:

- Park in shade if available.
- Open doors when parked more than **4 hours for dry van** or **6 hours for vented trucks**.
- You have the option to take and send pictures for proof of doors open during stops that last longer than 4 hours or 8 hours for vented trailers.

WHY HUMIDITY IS A PROBLEM IN TRAILERS



Moisture accumulation



High humidity effect



Stem mold progression



Spore generation & spread

Why Humidity Is a Problem in Trailers

1. Moisture accumulation

- Trailers (especially reefers in continuous mode or unvented dry vans) trap **respiration moisture** released from the pumpkins themselves.
- Warm outside air meeting cooler trailer air creates **condensation** on walls, ceilings, and even the fruit surface.
- If bins are stacked tight without airflow, moisture pockets form between fruit.

2. High humidity effect

- At **>75–80% relative humidity**, pumpkin rinds and stems stay **damp** instead of dry.
- Mold spores (always present in the air, bins, and field soil) germinate much faster on wet surfaces.
- The stem area is especially vulnerable because it's woody, porous, and can wick in water.

3. Stem mold progression

- Wet stems soften and develop **fuzzy white, gray, or green mold colonies**.
- Mold spreads from stem scars into the pumpkin flesh.
- Once inside, fungi such as **Fusarium, Rhizopus, or Botrytis** cause **soft rot** that collapses the pumpkin wall.

4. Spore generation & cross-contamination

- As colonies grow, they **release millions of spores**.
- Vibrations and airflow during transit move spores to other pumpkins, pallets, and trailer surfaces.
- If even a few fruit are compromised, the infection can cascade across the load.

5. Enclosed trailer conditions make it worse

- **No fresh air exchange** = spores accumulate.
- **Temperature swings** (day/night, or reefer cycles) = repeated condensation/evaporation cycles, re-wetting surfaces.
- **Ethylene exposure** (if mixed with apples, melons, etc.) accelerates pumpkin ripening and rind softening, making them even more mold-prone.

Practical Controls

- **Target 50–70% RH** inside the trailer, not near 100%.
- Keep **reefer fresh-air vents closed** (they bring in humid outside air).
- Use **dry dunnage/cardboard slips** under pallets to absorb condensation.
- Never load **wet or dew-covered pumpkins** — they must be field-dried first.
- If possible, **air-cure stems** before harvest/loading (reduces stem rot risk).
- Inspect at unloading: look for **dark, water-soaked stem scars** = early mold entry.