



Wholesale Packaging 101

Introduction

This resource was created to support IL-EATS farmers and lead agencies navigating the packaging requirements of wholesale markets. Packaging is the first line of defense against product damage, potential contaminants, and moisture or temperature control, making it an essential step in the journey from farm to consumer (CFPAC 2021).

Packaging food products properly is a critical step in selling to wholesale markets. Packaging should contain, protect, and identify the produce. While each aggregator, distributor, or IL-EATS lead agency may have different packaging requirements, there are generally recognized standards for packaging that will be outlined in this guide. These guidelines are meant to serve as a starting point for wholesale markets. It is always recommended that you communicate directly with your buyer.

Packaging Specifications

Always buy high-quality white waxed boxes. Cheap boxes will collapse during shipment and cost you more money. Be sure you have the correct packaging before making purchases (Marbleseed 2024). Packaging must be safe and adequate for the intended food product. It is recommended to avoid reusing packages designed as single-use. Reference the Produce Specifications section for recommendations by product (Marbleseed 2024).

Common Packaging Codes (Marbleseed 2024)

- 1-1/9 Bushel Box: KD-332
- 1/2 Bushel Box: KD-369
- 3/4 Bushel Box: KD-020
- 1-7/8 Cabbage Box: KD-38

Helpful Resources

- [Wholesale Packing Resource Guide \(SARE 2010\)](#)
- [Containers & Packaging: Fruits and Vegetables \(Kansas State Extension 1991\)](#)
- [Wholesale Success Manual \(FamilyFarmed 2010\)](#)



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Common Wholesale Packaging Options

Common options for wholesale packaging include bags, crates, baskets, boxes, flats, and bulk bins (Sykes 2010). The following definitions come from the Wholesale Packing Resource Guide (Sykes 2010):



Bag or Sack

Made of burlap, cotton, plastic mesh, or plastic film; Common for less fragile produce because it offers no structural support



Basket

Typically wooden; Ranges in size from 1/4 peck to 1 bushel



Box or Carton

A corrugated fiberboard container that closes with flaps on the top. Size ranges from 1/2 peck to 1 bushel; Often waxed for water resistance



Bulk Bin

A large corrugated fiberboard container that has a wooden pallet bottom; Often used for produce that does not bruise easily such as potatoes, onions, melons, and winter squash



Crate

A wooden container usually bulk-filled to a desired weight



Flat

Flat: A container packed in 1-2 layers; Often used to pack produce packaged in consumer-ready containers like berries

Labeling

Each case or box must include a basic label or sticker that can be handwritten, printed, or pre-printed with the following information:

- **Name of farm/business**
- Farm address (optional)
- **Product name**
- **Quantity in box/case**
- **Date packed**

Farm name: Dusty Trail Farm

Product: Organic Asparagus

Quantity: 75

Date packed: 5/22/2024

Example label for a case/box of IL-EATS product

For more information on labeling, review the [Farmer Welcome Packet](#).



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Recommended Packaging Companies

Belmark

- Address: 600 Heritage Road, De Pere, WI 54115
- Phone: 920-280-3524
- Email: getstarted@belmark.com
- Website: Belmark Eco-Friendly Product Packaging

Glacier Valley Enterprises

- Address: 600 South Blvd., Baraboo, WI 53913
- Phone: 608-356-2244
- Email: sales@glacierv.com
- Website: Glacier Valley Enterprises

Good Start Packaging

- Address: 10 Corporate Drive, Suite 201, Bedford, NH 03110
- Phone: 866-971-9251
- Website: Good Start Packaging Produce Containers

Monte Package Company

- Address: 3752 Riverside Road, Riverside, MI 49084
- Phone: 800-653-2807
- Website: Monte Package Company

Rockford Package Supply

- Address: 1080 Vitality Drive, Comstock Park, MI 49321
- Phone: 800-444-7225
- Email: onlinesupport@rockfordpack.com
- Website: Rockford Package Supply

Uline

- Address: 12575 Uline Drive, Pleasant Prairie, WI 53158
- Phone: 1-800-295-5510
- Email: customer.service@uline.com
- Website: ULine Produce Packaging
- Note: Uline offers a durable bag (ID S-1257) that works well for up to 50 pounds of bagged root vegetables or 5-10 pounds of greens.

Wunderlich Fibre Box Co.

- Address: 821 Clinton Street, St. Louis, MO 63102
- Phone: 314-231-1488
- Website: Wunderlich Fibre Box Company



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PRODUCE SPECIFICATIONS



PRODUCT	HARVEST NOTES	GRADE / SIZE	SPECS	COLOR	COOLING OPTIONS	STORAGE TEMP	STORAGE HUMIDITY	QUANTITY	PACKAGING
ASPARAGUS	Closed bracts; stalks should be free of excess woody fiber in the stem; harvest in the morning or when cool; do not let overheat	US No. 1 standard: fresh, well-trimmed, and fairly straight; free from decay and damage caused by spreading or broken tips, dirt, disease and other means	1/2" minimum diameter	Green	Immediate cooling necessary; hydrocool	34-38 degrees F	95-100%	28-1lb bunches	Asparagus box
BEETS (BUNCHED)	Can bunch in field; remove yellow leaves	US No. 1: well-trimmed, fairly smooth, fairly well shaped, fairly clean, free from soft rot and from damage caused by cuts, freezing, growth cracks, disease, rodents or insects or mechanical or other means	Tops are fresh and free from decay, beets minimum 1.5" long	Deep red	Beet tops perishable, cool quickly; hydrocool	32 degrees F	98%	12 bunches	1-1/9bu box
BOK CHOY	Harvest early or when cool; good if bok choy is wet; remove damaged or yellow leaves; handle gently, it can bruise.	Not graded in US	No bruising, slimy spots or wilted leaves	Green leaves with white stems	Hydrocooling, room cooling, top-icing	32-41 degrees F	95%	24 count	Cabbage box / leafy green box 1 3/4 bu box
BROCCOLI	Harvest early or when cool; can be wet; trim stems and side leaves	US No. 1: Fairly uniform heads, no hollow stems, no flowering heads, free from decay and damage caused by over maturity; free from discoloration of bud clusters or leaves, freezing, wilting, dirt, disease, insects or other foreign material	Pack so stem ends do not damage crowns	Dark or bright green	Cool as quickly as possible; hydrocool, top-ice	32 degrees F	98-100%	12 OR 14 count bunches	Leafy green box 1 3/4 bu box
CABBAGE (GREEN)	Stands up to heat; can field pack, but keep clean; cut some cabbages open to check for internal problems	US No. 1: reasonably solid, not withered, puffy or burst and free from soft rot, seed stems and damage caused by discoloration, freezing, disease, insects; stems shall be cut so they do not extend more than 1/2" beyond point of attachment of outermost leaves	18-24 count; Medium 2-5lb, large over 5lb; free from splitting, crisp and firm with a good green color and compact head.	Green	Forced air	32-40 degrees F	98-100%	45-50lb, medium heads	Cabbage box 1 3/4 bu box
CABBAGE (RED)	stands up to heat; can field pack, but keep clean; cut some cabbages open to check for internal problems	US No. 1: reasonably solid, not withered, puffy or burst and free from soft rot, seed stems and damage caused by discoloration, freezing, disease, insects; stems shall be cut so they do not extend more than 1/2" beyond point of attachment of outermost leaves	18-24 count; Medium 2-5lb, large over 5lb; free from splitting with fresh, crisp wrapper leaves	Red or purple	Forced air	32-40 degrees F	98-100%	45-50lb, medium heads	Cabbage box 1 3/4 bu box

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PRODUCT	HARVEST NOTES	GRADE / SIZE	SPECS	COLOR	COOLING OPTIONS	STORAGE TEMP	STORAGE HUMIDITY	QUANTITY	PACKAGING
CAULIFLOWER	 Tolerates hot or wet harvest conditions; bruises easily	US No. 1: clean, compact, free from soft or wet decay, free from damage caused by bruising, cuts, discoloration, enlarged bracts, fuzziness, hollow stem, insects, mold, riciness, wilting	Minimum 4" diameter, white to cream in color, firm and compact.	White, creamy white	Top-ice, forced air	32 degrees F	95-98%	9 OR 12 count	1-1/9 bu box
CELERY	 Petioles should be tender, light green and appear fresh	US No. 1: fairly well formed, well trimmed, fairly compact and free from blackheart, soft rot and damage caused by freezing, growth cracks, horizontal cracks, pithy branches, seed stems, suckers, dirt, doubles, wilting, blight, insects	Minimum 12" or 14"; any leaves on stalk are not wilted, yellow or decayed	Green with white blanching on stalks	Quick cooling necessary, hydrocooling	32 degrees F	95%	30 count	Celery boxes 1-1/9 bu box
CILANTRO	 Harvest with a knife or scissors	Not graded in US	No yellowing, decay, insect damage or mechanical damage, leaves should be uniform size	Green	Forced air, do not wash	32 degrees F	90-95%	30 count	¾ bu box with perforated plastic liner
CORN (SWEET)	 Harvest early in the day when still cool; put directly into cooler; can be iced in the field; husks do not protect corn, bruises will show up later if corn is tossed or squeezed; the faster corn is cooled, the better it will hold its sweetness	US Fancy: 6" min length, not clipped; US No. 1; 45-55 count; less than 10% are 1-3/4" diameter; well trimmed and developed, free from smut, decay rust, discoloration, damage from birds, worms, insects, disease; cobs must be fairly well filled with plump, milky kernels and fairly well covered with fresh husks	Silk ends free of decay and no worm damage or insects; minimum 5" long	Fresh well-colored green husks	Hydrocool in cold water, top with crushed ice; forced air	34-38 degrees F	85-90%	48 count	RPC (6425n), Crate, Bag, RPCs \$1.30/ RPC rental
CUCUMBER	 Harvest when dry, can be hot outside; avoid twisting and turning; do not ice	US Extra No. 1, US Fancy: well colored, well formed, not overgrown, fresh firm and free from decay and sunscald, free from injury caused by scars and damage caused by yellowing, sunburn, dirt or other foreign material, freezing mosaic or other disease, insects, cuts, bruises	72 ct. minimum 6" long; max diameter 2 3/8"; no soft ends, spotting or decay	24 ct. 2" x 10" with uniform sizing	Dark green with no yellow	45-55 degrees F	90-95%, do not ice	24 count consistent sizing	5/9 bu box (24 ct)
EGGPLANT	 Harvest when dry, use clippers, keep stem short; Harvest gently	US Fancy, US No. 1: well colored, firm, clean well shaped, free from decay and worm holes and free from injury caused by scars, freezing, disease, insects, mechanical or other means	7-9.5" long, glossy and consistent sizing. Dark purple in color, free from scars and cuts	Dark purple	Hydrocooling, forced air cooling	46-54 degrees F, do not ice	90-95%	12 count, medium	1-1/9 bu box

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PRODUCT	HARVEST NOTES	GRADE / SIZE	SPECS	COLOR	COOLING OPTIONS	STORAGE TEMP	STORAGE HUMIDITY	QUANTITY	PACKAGING
GREEN BEANS	 Do not harvest when wet; keep stem ends intact when picking, pods are firm, crisp and fully elongated	US No. 1: requires reasonable size (4-6"), not spindly; firm, tender, crisp and fairly straight; keeping stem pieces to a minimum in the cases, to many stem or vine pieces from machine pick green beans is a turn off to buyers	Relatively straight and snap easily when bent	Dark green	Hydrocool, dry on screen table; forced air	40-45 degrees F	95%	26-30lbs fill to top!	1-1/9 bu box or wire bound crate (bulk) or bagged
KALE	 Harvest early or when cool, keep shaded, bunch in the field, don't pick newest leaves	US No. 1: one type that is well trimmed, not stunted, free from decay and damage caused by yellow or discolored leaves, steed stems, wilting, bud burn, freezing, dirt disease, insects	Mature, tender leaves with a good dark green color, free from worm damage and debris	Dark green; ORGANIC: green or red	Hydrocooling, package icing	32 degrees F	95%, ice preferred but not required	24 bunch, Organic: banded with PLU code	Large leafy green box 1 3/4 bu Box
LETUCE (HEAD)	 Harvest early or when cool, wetness OK; remove damaged or yellow leaves; do not handle roughly	US No. 1, US Fancy: fresh, not soft, not burst; free from decay, russet spotting, doubles; free from injury by tip burn, downy mildew, field freezing, discoloration	24 count; No browning or red spots on butt end; Green and Red 8-10" long; uniform heads. Crisp leaves loosely arranged on stalk	Green, red	Hydrocool, set heads upside down to drip dry	34-38 degrees F	98-100%	24 heads	Lettuce box 1 3/4 bu box
LETUCE (ROMAINE)	 Harvest early or when cool, wetness OK; remove damaged or yellow leaves; do not handle roughly	US No. 1, US Fancy: fresh, not soft, not burst; free from decay, russet spotting, doubles; free from injury by tip burn, downy mildew, field freezing, discoloration	24 count; No browning or red spots on butt end; Romaine 12-14" long; uniform heads	White base with green leaf	Hydrocool, set heads upside down to drip dry	34-38 degrees F	98-100%	24 heads	Lettuce box 1 3/4 bu box
PEAS (SUGAR SNAP)	 Harvest when the pods are green and still tender and the peas inside are just starting to swell.	US No. 1: not badly misshapen or water soaked, fairly well filled, fresh, firm, free from decay, free from damage caused by black calyxes, freezing, splitting, hail, dirt, leaves, mildew or other diseases, insects; fairly tender, free from damage caused by split skins	Not overly mature or excessively small	Solid green	Forced air cooling	34-38 degrees F	NA	26-30lb fill to top!	1-1/9 bu box
PEPPERS (BELL GREEN)	 Harvest when dry and early morning is recommended. Use clean knife or clippers to cut stem, cut stem short	US No. 1 Extra Fancy and US Fancy: firm, well shaped, free from sunscald, freezing injury, decay affecting calyxes and/or walls, decay affecting stems, free from injury caused by scars, hail, sunburn, disease, insects	No shriveling or decay in walls and calyxes, should be uniform shape, size and color.	Deep green	Forced air, hydrocooling	45-50 degrees F	85-90%, no ice	Large 50-55 count Jumbo 40-45 count	1-1/9 bu box

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PRODUCT	HARVEST NOTES	GRADE / SIZE	SPECS	COLOR	COOLING OPTIONS	STORAGE TEMP	STORAGE HUMIDITY	QUANTITY	PACKAGING
POTATOES	 Turgid, well-shaped, uniform, brightly colored, free from adhering soil, mechanical damage, greening, sprouts, diseases	US No. 1: firm, fairly clean, fairly well shaped, free from freezing damage, blackheart, late blight, southern bacterial wilt, ring rot, soft rot, wet breakdown; free from damage by any other cause	2" minimum; 14-16 count per bag; firm, clean, well-shaped	Red: red Russet: light to medium brown Yukon Gold: light to medium gold	Curing: 1-2 weeks at 68 degrees F with relative humidity of 80-100%; after curing lower temperature by 1-2 degrees each day until storage temp is reached (45-50 degrees F)	45-50 degrees F	90%	25 or 50 lbs	1-1/9 bu box
PIE PUMPKINS	 Solid external color; flesh is bright yellow or orange with fine, moist texture and high solids, sugars and starch; clip leaving stems; ensure proper ventilation; avoid puncturing flesh	US No. 1: well matured, not broken or cracked, free from soft rot or wet breakdown, free from damage by scars, dry rot, freezing, dirt, disease, insects	3-7lb each, medium size; clean with little scarring; firm with stems intact; not more than 5% allowed for decay; not more than 7% allowed to have absence of stems	Orange	No cooling necessary	50-55 degrees F	50-75%, no ice	6-8 count	1-1/9 bu box
RADISH	 Can bunch in field; remove yellow leaves	US No. 1: roots are clean, well formed, smooth, firm, tender, free from decay and damage caused by freezing, growth or air cracks, cuts, pithiness, disease, insects; tops are fresh with normal green color and not more than slightly wilted	Diameter not less than 5/8" unless specified. Roots are fresh, well-colored, tender, firm, crisp and not stringy, woody or soft; tops are fully intact dark green with no yellowing	Red with bright green leaves	Hydrocool	32 degrees F	90-95%	24 bunches	3/4 bu box
SQUASH (WINTER)	 Cut with pruning clippers, leave a short stem, avoid wounding flesh	US No. 1: well matured, not broken or cracked, free from soft rot or wet breakdown, free from damage caused by scars, dry rot, freezing, dirt, disease, insects	Acorn: 2lb average, uniform size Buttercup: 2lb average, 18-20 count Butternut: 3lb average, 13-16 count Spaghetti: 3lb average, 11-13 count	Acorn: green Buttercup: deep green Butternut: salmon Spaghetti: light yellow	No cooling necessary; to cure place in a warm, ventilated, dry area, bring temperature to 85-95 degrees F for 8-10 days	45-55 degrees F	NA	35lb	1-1/9 bu box
SQUASH (YELLOW)	 Handle carefully, bruise easily, do not scratch	US No. 1 fancy: 6-8" in length, stems or portions of stems attached, fairly young and fairly tender, fairly well formed, firm, free from decay and breakdown, from damage caused by discoloration, cuts, bruises, scars, freezing, dirt or other foreign material, disease, insects, mechanical or other means	Medium fancy, straight neck, no goldbar. Shiny, tender, firm completely yellow and not too large.	Green or Yellow	Room cooling, forced air cooling	38-42 degrees F	NA	20lb	1/2 bu box

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PRODUCT	HARVEST NOTES	GRADE / SIZE	SPECS	COLOR	COOLING OPTIONS	STORAGE TEMP	STORAGE HUMIDITY	QUANTITY	PACKAGING
SQUASH (ZUCCHINI)	 Handle carefully, bruise easily, do not scratch	US No. 1 fancy: 6-8" in length, stems or portions of stems attached, fairly young and fairly tender, fairly well formed, firm, free from decay and breakdown, from damage caused by discoloration, cuts, bruises, scars, freezing, dirt or other foreign material, disease, insects, mechanical or other means	Medium fancy, straight neck; no longer than 6-8", no greater than 2" diameter; no softness. Shiny, tender, firm, completely green and not too large.	Green or Yellow	Room cooling, forced air cooling	38-42 degrees F	NA	20lb	½ bu box
TOMATILLO	 Harvest when fruit are well-formed and substantially filled husks, still bright green	Not graded in US	Firm and bright green with husks, no yellowing	Bright green	Forced air cooling, room cooling	41-50 degrees F	80-90%	40lb	1-1/9 bu box
TOMATOES (RED)	 Do not squeeze, do not harvest when wet, handle very delicately	US No. 1: mature not overripe or soft; clean, well developed, fairly well formed, fairly smooth; free from decay, freezing injury, sunscald; not damaged by any other cause	Buyer will specify stage Stage 1 Mature Green Stage 2 Pink Stage 3 Ripe	Salmon, just turning red	Room cooling, forced air cooling	50-60 degrees F	90-95%	25lb 5 by 6 or 6 by 6	Tomato box with lid
TOMATOES (HEIRLOOM)	 Do not squeeze, do not harvest when wet, handle very delicately	US No. 1: mature not overripe or soft; clean, well developed, fairly well formed, fairly smooth; free from decay, freezing injury, sunscald; not damaged by any other cause. No splits in the tomatoes will be accepted	Buyer will specify stage Stage 1 Mature Green Stage 2 Pink Stage 3 Ripe	Tomatoes will appear unripe in color.	Room cooling, forced air cooling; Put temperature blanket on these when hauled on refrigerated truck.	50-60 degrees F	90-95%	25lb 5 by 6 or 6 by 6	Tomato box with lid
TOMATOES (CHERRY)	 Do not squeeze, do not harvest when wet, handle very delicately	US No. 1: mature not overripe or soft; clean, well developed, fairly well formed, fairly smooth; free from decay, freezing injury, sunscald; not damaged by any other cause	Buyer will specify stage Stage 1 Mature Green Stage 2 Pink Stage 3 Ripe	Salmon, just turning red Sungold type, golden	Room cooling, forced air cooling	50-60 degrees F	90-95%	12-14oz clamshells	Pint clamshells, clamshell tray
WATERMELON	 Brush soil off in field with gloves, temperature should remain consistent after harvesting	US Fancy: Tolerance: 8% US No. 1: Tolerance: 10% Mature, similar varietal characteristics, fairly well formed, not overripe. Free from anthracnose, decay, sunscald, Whiteheart. Free from damage by any means. All must be brushed with no signs of dirt or mud.	Well formed, symmetrical and uniform in shape with a waxy, bright appearance.	Fully green outside, pink/red inside	Room cooling, forced-air cooling	50-59 degrees F	90%	45ct	Full bin



References

Special thanks to Marbleseed for the use of their Produce Specifications included in the Wisconsin Local Food Purchase Assistance Direct to Farmer Grant Guide and to the farmers in Illinois who provided insight on packaging companies.

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