

| CROP | Harvest Quality | Storage Temp F | Lowest safe temp | % Relative humidity | Precooling Method | Storage Life Days |
|--------------------|-----------------------------------|----------------|------------------|---------------------|-------------------|-------------------|
| Apples | | 36-40 | 34-36 | 90-95 | R, F, H | 90-240 |
| Asparagus | bracts at tip closed | 32-35 | 32-35 | 95-100 | H, I | 14 |
| Basil | fresh, tender leaves | 55 | 40-42 | 95 | | 7 |
| Beans, snap | seeds developed, plump | 45 | 45 | 95 | R, F, H | 7-10 |
| Beans, lima | crisp pods, seeds immature | 37-41 | 34-40 | 95 | R, F, H | 7-10 |
| Beets, bunched | crisp fresh leaves | 32 | | 95 | H, I | 14 |
| Beets, root | firm, deep red roots | 32 | | 98-100 | R | 90-150 |
| Blackberries | full color, sweet | 31-32 | | 90-95 | R, F | 2-3 |
| Blueberries | full color, sweet | 31-32 | | 90-95 | R, F | 10-18 |
| Broccoli | firm head, buds not open | 32 | | 95-100 | I, F, H | 10-14 |
| Brussel sprouts | firm sprouts | 32 | | 95-100 | H, V, I | 21-35 |
| Cabbage | crisp, firm, compact head | 32 | | 98-100 | R, F | 30-180 |
| Cantaloupe | full slip, rind color | 36-41 | 36-41 | 95 | H, F | 10-14 |
| Carrots, topped | tender, sweet roots | 32 | | 98-100 | I, R | 28-180 |
| Cauliflower | compact, white curds | 32 | | 90-98 | H, V | 20-30 |
| Celery | crisp, tender | 32 | | 98-100 | I | 14-28 |
| Corn, sweet | plump tender kernels | 32 | | 95-98 | H, I, V | 4-6 |
| Cucumbers | crisp, green, firm | 50-55 | 45 | 95 | F, H | 10-14 |
| Eggplant | seeds immature; shiny, firm | 46-54 | 45 | 90-95 | R, F | 10-14 |
| Endive | fresh, crisp, tender leaves | 32 | | 90-95 | H, I | 14-21 |
| Garlic | | 32-34 | | 65-75 | N | 90-210 |
| Brassica Greens | crisp, dark green leaves | 32 | | 95 | H, I | 10-14 |
| Herbs | fresh, crisp, tender leaves | 32 | | 95 | | 10-14 |
| Leeks | size, crisp | 32 | | 95-100 | H, I | 60-90 |
| Lettuce | compact head, crisp, tender | 32 | | 85-90 | H, I | 14-21 |
| Mushrooms | size, firm | 32 | | 95 | | 12-17 |
| Onions, bulb | firm bulbs, tight necks | 32 | | 65-70 | N | 30-180 |
| Onions, green | crisp stalks, firm white bulbs | 32 | | 95-100 | H, I | 7-10 |
| Parsley | crisp, dark green leaves | 32 | | 95 | H, I | 21 |
| Pears | | 32 | | 90-95 | F, R, H | 60-90 |
| Peas, in pods | tender, green, sweet pods | 32 | | 95-98 | F, H, I | 7-10 |
| Peppers, bell | firm, shiny, thick walls | 40-55 | 45 | 90-95 | R, F | 12-18 |
| Peppers, hot | firm, shiny, thick walls | 45-50 | 45 | 60-70 | R, F | 14-21 |
| Potatoes, early | well shaped, defect free | 50-60 | 38 | 90 | R, F | 56-140 |
| Potatoes, late | well shaped, defect free | 40-50 | 38 | 90 | R, F | 56-140 |
| Pumpkins | hard rind, good color, heavy | 50-60 | 50 | 50-75 | N | 84-160 |
| Radishes with tops | firm, crisp, dark green leaves | 32 | | 95 | H, I | 14-21 |
| Raspberries | full color, sweet | 32 | | 90-95 | R, F | 2-3 |
| Rutabagas | roots firm with smooth surface | 32 | | 98-100 | R | 120-180 |
| Spinach | dark green, fresh, crisp leaves | 32 | | 95-100 | H, I | 10-14 |
| Squash, summer | firm, shiny, right size | 41-50 | | 95 | R, F | 7-14 |
| Squash, winter | hard rind, heavy, good color | 50-55 | 50 | 50-70 | N | 84-150 |
| Strawberries | full color, sweet | 32 | | 90-95 | R, F | 5-10 |
| Sweet potatoes | | 55-60 | 55 | 85-90 | N | 120-210 |
| Tomatoes | firm, uniform coloration | 62-68 | 45-50 | 90-95 | R, F | 7-28 |
| Turnips | firm, heavy roots | 32 | | 95 | R, H, V, I | 120-150 |
| Watermelon | crisp, good flesh color, not musk | 50-60 | 40 | 90 | N | 14-21 |

F = forced-air cooling, H = hydrocooling, I = package icing, R = room cooling, V = vacuum cooling, N = no precooling needed

Sources: USDA Agricultural Marketing Service, Kansas State University Extension and Jim Waltrip at PetoSeed

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| CROP | Ethylene Production | Ethylene sensitive | chilling or mishandling injuries | Respiration Rate | ICED |
|--|---------------------|--------------------|---|------------------|------|
| Apples | very high | high | browning, rot, soft | low | |
| Asparagus | low | low | dull, limp | very high | YES |
| Basil | low | low | browning, limp | high | NO |
| Beans, snap | low | moderate | surface pitting, brown streaks, dark tips | high | NO |
| Beans, lima | low | moderate | yellow to brownish lesions on tips and stalks | high | NO |
| Beets, bunched | very low | low | limp tops, rots | high | CAN |
| Beets, root | very low | low | black root, brown spots on rot tips | moderate | YES |
| Blackberries | low | low | mold | | NO |
| Blueberries | low | low | mold | | NO |
| Broccoli | very low | high | strong odor, yellowish, black rot spots | very high | YES |
| Brussel sprouts | very low | high | tipburn, black leaf speck, yellowing | high | CAN |
| Cabbage | very low | high | black spots, tipburn, soft | moderate | |
| Cantaloupe | high | moderate | soft spots, fusarium rot | moderate | CAN |
| Carrots, topped | very low | high | rubbery, insect damage, brown lesions | moderate | YES |
| Cauliflower | very low | high | yellow or brown curds, riciness | high | YES |
| Celery | very low | moderate | yellowing, limp, rots | moderate | NO |
| Corn, sweet | very low | low | tough kernels, loss of sugar | very high | YES |
| Cucumbers | low | high | pitted, watersoaked, yellowing | moderate | NO |
| Eggplant | low | moderate | browning, shriveling, decay, pitting | | NO |
| Endive | very low | moderate | wilting, yellowing, soft, rots | | YES |
| Garlic | very low | low | rots, soft neck, brown spots | low | NO |
| Brassica greens | very low | moderate | wilting, yellowing, soft, rots | high | YES |
| Herbs | very low | moderate | wilting, yellowing, soft, rots | | NO |
| Leeks | very low | moderate | rot around roots, limp | | CAN |
| Lettuce | very low | high | wilting, bolting, tipburn, discoloration | high | NO |
| Mushrooms | low | moderate | browning, water spots | very high | NO |
| Onions, bulb | very low | low | soft neck, sprouting, root growth, rots | very low | NO |
| Onions, green | very low | moderate | limp, yellowing, rots | high | YES |
| Parsley | very low | high | limp, yellowing, bad odor | high | CAN |
| Pears | high | high | mushy, soft, rots | moderate | NO |
| Peas, in pods | very low | moderate | tough, yellowing, limp, yellow | very high | YES |
| Peppers, bell | low | low | pitting, wilting, rot, soft | moderate | NO |
| Peppers, hot | low | low | pitting, wilting, rot, soft | moderate | NO |
| Potatoes, early | very low | moderate | soft rot, scab, surface discoloration | moderate | NO |
| Potatoes, late | very low | moderate | sprouting, soft rot, scab, discoloration | very low | NO |
| Pumpkins | low | low | rot, broken handles | moderate | NO |
| Radishes with tops | very low | moderate | color bleed, pithy, rots | high | CAN |
| Raspberries | low | low | mold | | NO |
| Rutabagas | very low | low | pitting, rots, water spots | low | CAN |
| Spinach | very low | high | wilting, yellowing, rots | verh high | YES |
| Squash, summer | low | moderate | pitting, limp, rots | moderate | NO |
| Squash, winter | low | low | rots, color loss | moderate | NO |
| Strawberries | low | low | mold, water spots, limp | | NO |
| Sweet potatoes | very low | low | decay, pitting, discoloration | low | NO |
| Tomatoes | moderate | high | decay, pitting, antracnose, cracking | moderate | NO |
| Turnips | very low | low | pitting , water spots, rots | low | YES |
| Watermelon | low | high | rots, anthracnose | | |
| F = forced-air cooling, H = hydrocooling, I = package icing, R = room cooling, V = vacuum cooling, N = no precooling nee | | | | | |
| Sources: USDA Agricultural Marketing Service, Kansas St U Ex Service and Jim Waltrip at PetoSeed | | | | | |
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