## FRESH VEGETABLES AND FRESH FRUIT

| Commodity | Shelft Life (days) | Recommended Temperature Settings |  | Recommen- <br> ded Fresh <br> Air <br> Exchange <br> (CFM) | Benefit from Modified or Controlled Atmosphere | Acceptable Receiving Pulp Temperature Range |  | Highest Freezing Point |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ |  |  | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ |
| Acerola - Barbados Cherry | 50-58 | 34 | 1.1 | closed | none | 32-40 | 0 to 4.4 |  |  |
| Amaranth Leaves | 10-14 | 34 | 1.1 | 45 | none | 32-34 | 0 to 1.1 |  |  |
| Anise | 14-21 | 32-36 | 0-2.2 | closed | none | 32-34 | 0 to 1.1 |  |  |
| Apples, Granny Smith | 90-240 | 33 | 0.6 | 30 | excellent | 30-44 | -1.1 to 6.7 | 29.3 | -1.5 |
| Apples, Chilling sensitive | 40-45 | 40 | 4.4 | 15 |  | 36-50 | 2.2 to 10 | 29.3 | -1.5 |
| Apricots | 7-14 | 33 | 0.6 | 30 | good | 31-46 | -0.6 to 7.8 | 30.5 | -0.8 |
| Aravi - Yams | 50-115 | 56-60 | 13.3-15.6 | closed | none/slight | 56-60 | 13.3 to 15.6 | 30 | -1.1 |
| Artichokes, Globe | 14-21 | 32-33 | 0-0.6 | 45 | good | 32-41 | 0 to 5 | 29.9 | -1.2 |
| Artichokes, J erusalem | 100-150 | 33-34 | 0.6-1.1 | 15 | none | 30-41 | -1.1 to 5 | 27.5 | -2.5 |
| Asparagus, Green | 14-21 | 33-36 | 0.6-2.2 | 45 | good | 35-41 | 1.7 to 5 | 30.9 | -0.6 |
| Atemoya | 28-42 | 55 | 12.8 | closed | none | 55-60 | 12.8 to 15.6 |  |  |
| Avocados, Mature-green | 21-28 | 41-55 | 5-12.7 | 30 | good | 40-60 | 4.4 to 15.6 | 31.5 | -0.3 |
| Avocados, RipeAvocados | 14-21 | 36-40 | 2.2-4.4 | 30 | good | 40-60 | 4.4 to 15.6 | 31.5 | -0.3 |
| Babaco | 7-21 | 45 | 7.2 | closed | none | 45-50 | 7.2 to 10 |  |  |
| Bananas | 7-28 | 56-57 | 13.3-13.9 | 15 | excellent | 57-65 | 13.9 to 18.3 | 30.6 | -0.8 |
| Bean Sprouts - Mung Beans | 7-9 | 32 | 0 | 45 | none | 32-44 | 0 to 6.7 |  |  |
| Beans, Lima, Shelled | 7-10 | 37-39 | 2.8-3.9 | 45 | none | 37-45 | 2.8 to 7.2 | 31 | -0.6 |
| Beans, Lima, Unshelled | 7-10 | 41-43 | 5-6.1 | 45 | none | 37-45 | 2.8 to 7.2 | 31 | -0.6 |
| Beans, Snap or Green | 10-14 | 38-40 | 3.3-4.4 | 30 | fair | 36-42 | 2.2 to 5.5 | 30.7 | -0.7 |
| Beans, Winged | 28 | 50 | 10 | closed | none | 50-60 | 10 to 15.6 |  |  |
| Beets, Bunch | 10-14 | 34 | 1.1 | 15 | slight | 32-41 | 0 to 5 | 31.3 | -0.4 |
| Beets, Root | 90-150 | 34 | 1.1 | closed | slight | 31-41 | -0.6 to 5 | 30.3 | -0.9 |
| Belgian Endive - Witloof Chicory | 7-14 | 34-36 | 1.1-2.2 | 60 | good | 32-41 | 0 to 5 |  |  |
| Blackberries | 2-3 | 33 | 0.6 | 15 | very good | 31-41 | -0.6 to 5 | 30.6 | -0.8 |
| Blueberries | 7-14 | 33 | 0.6 | 15 | very good | 31-41 | -0.6 to 5 | 29.7 | -1.3 |
| Bok Choy | 30-60 | 32-34 | 0-1.1 | 30 | good | 31-41 | -0.6 to 5 |  |  |
| Breadfruit | 14-40 | 55-57 | 12.8-13.8 | 45 | good | 54-65 | 12.2 to 18.3 |  |  |
| Broccoli | 7-14 | 32-33 | 0-0.6 | 30 | good | 31-41 | -0.6 to 5 | 30.9 | -0.6 |
| Brussels Sprouts | 21-35 | 32-33 | 0-0.6 | 30 | good | 31-41 | -0.6 to 5 | 30.5 | -0.9 |
| Cabbage, Chinese - Napa Cabbage | 30-60 | 32-36 | 0-2.2 | 15 | good | 31-41 | -0.6 to 5 | 30.4 | -0.9 |
| Cabbage, Green (Early) | 21-42 | 32-36 | 0-2.2 | 15 | good | 31-41 | -0.6 to 5 | 30.4 | -0.9 |
| Cabbage, Green (Late) | 90-180 | 32-36 | 0-2.2 | 15 | good | 31-41 | -0.6 to 5 | 30.4 | -0.9 |
| Cabbage, Red (Early) | 21-42 | 32-36 | 0-2.2 | 15 | good | 31-41 | -0.6 to 5 | 30.4 | -0.9 |


| Cabbage, Red (Late) | 90-180 | 32-36 | 0-2.2 | 15 | good | 31-41 | -0.6 to 5 | 30.4 | -0.9 |
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| Cactus Pear | 14-35 | 43-46 | 6.1-7.8 | 15 | good | 41-50 | 5 to 10 |  |  |
| Cactus Steams - Nopales | 14-21 | 41-50 | 40091 | closed | none | 36-55 | 2.2 to 12.8 |  |  |
| Calabaza | 60-90 | 50 | 10 | 15 | none | 50-55 | 10 to 12.8 |  |  |
| Calamondin | 14 | 48-50 | 8.9-10 | closed | none | 48-55 | 8.9 to 12.8 |  |  |
| Canistel | 21 | 55 | 12.8 | closed | none | 55-60 | 12.8 to 15.5 |  |  |
| Cantaloupe | 12-21 | 37-41 | 2.8-5 | 30 | fair | 36-50 | 2.2 to 10 | 29.9 | -1.2 |
| Carambola | 28-42 | 41 | 5 | 15 | none | 41-50 | 5 to 10 |  |  |
| Carrots, Topped | 28-180 | 32-41 | 0-5 | 15 | slight | 30-44 | -1.1 to 6.7 | 29.5 | -1.4 |
| Cauliflower | 21 | 33 | 0.6 | 30 | fair | 31-41 | -0.6 to 5 | 30.6 | -0.8 |
| Celeriac | 180-240 | 33-34 | 0.6-1.1 | 15 | slight | 31-41 | -0.6 to 5 | 30.3 | -0.9 |
| Celery | 35-49 | 33 | 0.6 | 15 | fair | 32-41 | 0-5 | 31.1 | -0.5 |
| Chard | 10-14 | 34 | 1.1 | 45 | none | 32-41 | 0-5 | 31.9 | -0.1 |
| Chayote | 28-42 | 45 | 7.2 | closed | none | 32-55 | 0-12.8 | 31 | -0.6 |
| Cherries, Sour | 3-7 | 32 | 0 | 15 | very good | 29-44 | -1.7 to 6.7 | 29 | -1.7 |
| Cherries, Sweet | 14-21 | 31 | -0.6 | 15 | very good | 29-44 | -1.7 to 6.7 | 28.8 | -1.8 |
| Chicory | 14-28 | 33-34 | 0.6-1.1 | 45 | none | 31-41 | -0.6 to 5 |  |  |
| Chives | 14-21 | 33-34 | 0.6-1.1 | 45 | none | 32-41 | 0-5 |  |  |
| Clementines | 14-21 | 40 | 4.4 | 45 | none | 38-45 | 3.3 to 7.2 |  |  |
| Coconuts | 30-60 | 32-34 | 0-1.1 | closed | none | 31-46 | -0.6 to 7.8 | 30.4 | -0.9 |
| Collards | 10-14 | 33-34 | 0.6-1.1 | 45 | none | 31-41 | -0.6 to 5 | 30.6 | -0.8 |
| Corn, Sweet | 7 | 33-34 | 0.6-1.1 | 45 | good | 31-41 | -0.6 to 5 | 30.9 | -0.6 |
| Cranberries | 60-120 | 37-40 | 2.8-4.4 | 15 | slight | 34-45 | 1.1 to 7.2 | 30.4 | -0.9 |
| Cucumbers | 10-14 | 50-55 | 10-12.7 | 15 | fair | 45-60 | 7.2-15.6 | 30.1 | -1.1 |
| Currants | 7-14 | 33 | 0.6 | 15 | none | 31-41 | -0.6 to 5 | 30.2 | -1.0 |
| Daikon - Black Radish | 60-120 | 34 | 1.1 | 15 | none | 31-41 | -0.6 to 5 |  |  |
| Dasheen - Taro \& Eddo | 42-140 | 50 | 10 | closed | none/slight | 45-55 | 7.2-12.8 |  |  |
| Dates | 180-365 | 32 | 0 | 15 | none | 32-46 | 0 to 7.8 | 3.7 | -15.7 |
| Dewberries | 2-3 | 33 | 0.6 | 15 | none | 31-41 | -0.6 to 5 | 29.7 | -1.3 |
| Dragon Fruits | 28-35 | 45 | 7.2 | 15 | No published information | 45-55 | 7.2 to 12.8 | N/A |  |
| Dried Fruit \& Nuts | 6 months and up | 32-50 | 0-10 | closed | excellent | 32-70 | 0 to 21.1 |  |  |
| Durian, Mature unripe | 21-35 | 55-59 | 12.8-15 | 30 | good | 39-50 | 3.9 to 10 |  |  |
| Durian, Ripe | 7-14 | 55-59 | 12.8-15 | 30 | good | 39-50 | 3.9 to 10 |  |  |
| Eggplant | 10-14 | 50-54 | 10-12.2 | 15 | fair | 45-65 | 7.2-18.3 | 30.6 | -0.8 |
| Elderberries | 5-14 | 33 | 0.6 | 15 | none | 31-41 | -0.6 to 5 | 30 | -1.1 |
| Endive - Escarole | 14-28 | 34 | 1.1 | 30 | good | 32-41 | 0-5 | 31.9 | -0.1 |
| Feijoa | 28-35 | 41 | 5 | closed | none | 41-50 | 5 to 10 |  |  |
| Figs | 7-14 | 32 | 0 | 15 | good | 28-44 | -2.2 to 6.7 | 27.6 | -2.4 |
| Garlic | 90-210 | 31 | -0.6 | 15 | good | 31-46 | -0.6 to 7.8 | below 30 | -1.1 |
| Ginger | 90-180 | 56 | 13.3 | 15 | none/slight | 50-66 | 10 to 18.9 |  |  |


| Golden \& Red Delicious | 90-240 | 32 | 0 | 30 | excellent | 30-44 | -1.1 to 6.7 | 29 | -1.7 |
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| Gooseberries | 14-28 | 33 | 0.6 | 15 | none | 31-41 | -0.6 to 5 | 30 | -1.1 |
| Grapefruit, Arizona/ California/ | 28-42 | 58 | 14.4 | 15 | fair | 48-60 | 8.9 to 15.6 | 30 | -1.1 |
| Grapefruit, Florida/ Humid areas | 28-42 | 48-60 | 8.9-15.6 | 15 | fair | 48-60 | 8.9 to 15.6 | 30 | -1.1 |
| Grapes, Table | 56-180 | 31 | -0.6 | 15 | good | 30-42 | -1.1 to 5.6 | 28.1 | -2.2 |
| Greens, Leafy | 10-14 | 32-33 | 0-0.6 | 30 | none | 32-41 | 0 to 5 | 31.7 | -0.2 |
| Guavas | 14-21 | 46-50 | 7.8-10 | 30 | slight | 41-55 | 5 to 12.8 |  |  |
| Horseradish | 300-351 | 34 | 1.1 | closed | none/slight | 30-39 | -1.1 to 3.9 | 28.7 | -1.8 |
| J ackfruit | 14-21 | 56 | 13.3 | 45 | No published information | 56-80 | 13.3 to 26.7 |  |  |
| J icama | 30-60 | 55 | 12.7 | closed | none | 55-65 | 12.8 to 18.3 |  |  |
| J ujubes | 60-90 | 38-50 | 3.3-10 | 30 | No published information | 36-55 | 2.2 to 12.8 |  |  |
| Kale | 10-14 | 33 | 0.6 | 30 | none | 32-41 | 0 to 5 | 31.1 | -0.5 |
| Kiwanus | 180 | 50 | 10 | 45 | none | 50-60 | 10 to 15.6 |  |  |
| Kiwifruit - Chinese Gooseberry | 90-150 | 33 | 0.6 | 15 | excellent | 31-39 | -0.6 to 3.9 | 29.3 | -1.5 |
| Kohlrabi,Topped | 60-90 | 33-34 | 0.6-1.1 | 15 | none/slight | 31-41 | -0.6 to 5 | 30.2 | -1.0 |
| Kumquats | 14-28 | 39 | 3.9 | closed | none | 34-45 | 1.1 to 7.2 |  |  |
| Langsat | 10-15 | 52 | 11.1 | closed | No published information | 52-60 | 11.1 to 15.6 |  |  |
| Leeks, Green | 60-90 | 32 | 0 | 30 | good | 32-41 | 0 to 5 | 30.7 | -0.7 |
| Lemons | 30-180 | 54-57 | 12.2-13.9 | 15 | good | 45-60 | 7.2 to 15.6 | 29.4 | -1.4 |
| Lettuce, Crisphead or I ceberg | 12-14 | 33 | 0.6 | 15 | good | 32-41 | 0 to 5 | 31.7 | -0.2 |
| Lettuce, Romaine or Cos | 14-21 | 33 | 0.6 | 15 | good | 32-41 | 0 to 5 | 31.7 | -0.2 |
| Limes | 42-56 | 50-55 | 10-12.8 | 15 | Ca help to keep it green |  |  |  |  |
| Loganberries | 2-3 | 33 | 0.6 | 15 | none | 31-41 | -0.6 to 5 | 29.7 | -1.3 |
| Longan | 14-28 | 36-41 | 2.2-5 | 30 | good | 35-45 | 1.7 to 7.2 |  |  |
| Loquat | 14-28 | 33 | 0.6 | 15 | No published information | 32-41 | 0 to 5 |  |  |
| Lychee | 21-35 | 35-50 | 1.7-10 | 15 | good | 34-50 | 1.1 to 10 |  |  |
| Malanga - Cocoyam, Yautia | 42 | 50 | 10 | closed | none/slight | 55-66 | 12.8 to 18.9 |  |  |
| Mangoes, Mature-green | 21-28 | 55 | 12.8 | 30 | good | 50-55 | 10 to 12.8 | 30.4 | -0.9 |
| Mangoes,Partially-ripe \& Ripe | 14-21 | 50 | 10 | 30 | good | 45-55 | 7.2 to 12.8 | 30.4 | -0.9 |
| Mangosteens | 14-28 | 56 | 13.3 | 30 | none | 56-65 | 13.3 to 18.3 |  |  |
| Manioc - Cassava, Yuca | 21-35 | 41 | 5 | closed | none/slight | 38-45 | 3.3 to 7.2 |  |  |
| Mature-green | 14-28 | 55 | 12.8 | 15 | good | 45-60 | 7.2 to 15.6 | 30.4 | -0.9 |
| Melons, Bitter | 14-21 | 54-55 | 12.2-12.8 | closed | none | 54-60 | 12.2 to 15.6 |  |  |
| Melons, Casaba | 21-28 | 50 | 10 | 45 | fair | 50-65 | 10 to 18.3 | 30.1 | -1.1 |
| Melons, Crenshaw | 14-21 | 50 | 10 | 45 | good | 45-60 | 7.2 to 15.6 | 30.1 | -1.1 |
| Melons, Honeydew | 21-28 | 45 | 7.2 | 15 | good | 41-60 | 5 to 15.6 | 30.9 | -0.6 |
| Melons, Persian | 14-21 | 50 | 10 | 45 | good | 45-65 | 7.2 to 18.3 | 30.6 | -0.8 |
| Mushrooms | 12-17 | 33-34 | 0.6-1.1 | 45 | fair | 31-41 | -0.6 to 5 | 30.4 | -0.9 |
| Nectarines \& Peaches | 14-28 | 32 | 0 | 15 | good | 30-36 | -1.1 to 2.2 | 30.4 | -0.9 |
| Okra | 7-14 | 45-50 | 7.2-10 | 15 | fair | 45-55 | 7.2 to 12.8 | 28.7 | -1.8 |


| Olives, Fresh Green | 28-42 | 41-45 | 5-7.2 | 15 | good | 41-50 | 5 to 10 | 29.4 | -1.4 |
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| Onions, Dry | 30-270 | 33-34 | 0.6-1.1 | 30 | none | 31-41 | -0.6 to 5 | 30.6 | -0.8 |
| Onions, Green | 21-28 | 33 | 0.6 | 30 | good | 31-41 | -0.6 to 5 | 30.4 | -0.9 |
| Oranges | 21-90 | 38-48 | 3.3-8.9 | 15 | fair | 38-50 | 3.3 to 10 | 30.6 | -0.8 |
| Oranges, Mandarin/ Tangerine | 14-42 | 41-46 | 5-7.8 | 15 | none/slight | 38-50 | 3.3 to 10 | 30.1 | -1.1 |
| Papayas,Mature-green | 14-28 | 55 | 12.8 | 15 | good | 45-60 | 7.2 to 15.6 | 30.4 | -0.9 |
| Papayas,Partially-ripe | 14-28 | 50 | 10 | 15 | good | 45-60 | 7.2 to 15.6 | 30.4 | -0.9 |
| Papayas, ripe | 14-28 | 45 | 7.2 | 15 | good | 45-60 | 7.2 to 15.6 | 30.4 | -0.9 |
| Passion Fruit | 14-21 | 45-50 | 7.2-10 | 45 | none | 45-60 | 7.2 to 15.6 |  |  |
| Peaches \& Nectarines | 14-28 | 32 | 0 | 15 | good | 30-36 | -1.1 to 2.2 | 30.4 | -0.9 |
| Pears, Anjou,Bosc \& Comice | 120-180 | 31 | -0.6 | 15 | excellent | 30-36 | -1.1 to 2.2 | 28-29 | -2.2 to -1.7 |
| Pears, Asian | 120-180 | 32 | 0 | 15 | excellent | 31-41 | -0.6 to 5 | 29 | -1.7 |
| Pears, Bartlett | 90-180 | 32 | 0 | 15 | excellent | 30-44 | -1.1 to 6.7 | 29.2 | -1.6 |
| Peas, Snow and Sanp pod | 7-14 | 33-34 | 0.6-1.1 | 30 | good | 31-41 | -0.6 to 5 | 30.9 | -0.6 |
| Pepino - Mellow Fruit, Treemelon | 28-42 | 45-50 | 7.2-10 | closed | No published information | 40-60 | 4.4 to 15.6 |  |  |
| Peppers, Bell - Sweet Peppers | 21-35 | 41-45 | 5-7.2 | 15 | fair | 41-55 | 5-12.8 | 30.7 | -0.7 |
| Peppers, Hot Chili | 14-21 | 50 | 10 | 15 | slight | 45-55 | 7.2 to 12.8 | 30.7 | -0.7 |
| Persimmons, Fuyu | 25-84 | 32 | 0 | 15 | good | 30-44 | -1.1 to 6.7 | 28.1 | -2.2 |
| Persimmons, Hachiya | 50-90 | 32 | 0 | 15 | good | 30-44 | -1.1 to 6.7 | 28.1 | -2.2 |
| Pineapples, Partially-ripe | 14-28 | 50-55 | 10-12.8 | 15 | fair | 45-55 | 7.2 to 12.8 | 30 | -1.1 |
| Pineapples, Ripe | 14-28 | 45-50 | 7.2-10 | 15 | fair | 45-55 | 7.2 to 12.8 | 30 | -1.1 |
| Plaintains | 10-35 | 48-59 | 8.9-15 | 15 | No published information | 46-68 | 7.7 to 20 | 30.6 | -0.8 |
| Plums | 7-56 | 32 | 0 | 15 | good | 31-46 | -0.6 to 7.8 | 30.5 | -0.8 |
| Pomegranates | 60-90 | 41 | 5 | 15 | excellent | 32-51 | 0 to 10.6 | 27.6 | -2.4 |
| Pomeloes | 84 | 45 | 7.2 | 15 | No published information | 45-60 | 7.2 to 15.6 |  |  |
| Potatoes, Early | 21-35 | 55 | 12.8 | 15 | none/slight | 50-70 | 10 to 21.1 | 30.5 | -0.8 |
| Potatoes, Late | 150 | 45 | 7.2 | 15 | none/slight | 36-50 | 2.2 to 10 | 30.5 | -0.8 |
| Potatoes, Sweet - Boniato | 90-180 | 56 | 13.3 | closed | none/slight | 56-66 | 13.3 to 18.9 | 29.7 | -1.3 |
| Prunes | 14-28 | 32 | 0 | 15 | good | 31-46 | -0.6 to 7.8 | 30.5 | -0.8 |
| Pumpkins \& Winter Squash | 60-180 | 55-59 | 12.8-15 | 15 | none/slight | 50-70 | 10 to 21.1 | 30.5 | -0.8 |
| Quince | 60-90 | 32 | 0 | 30 | No published information | 31-44 | -0.6 to 6.7 | 28.4 | -2.0 |
| Radicchio | 14-21 | 34 | 1.1 | 45 | none | 32-41 | 0 to 5 |  |  |
| Radishes, Red (topped) | 21-28 | 33 | 0.6 | 15 | none/slight | 31-41 | -0.6 to 5 | 30.7 | -0.7 |
| Radishes, Daikon-type radish | 90-120 | 33 | 0.6 | 15 | none/slight | 31-41 | -0.6 to 5 | 30.7 | -0.7 |
| Rambutan | 7-21 | 50-54 | 10-12.2 | 30 | good | 50-65 | 10 to 18.3 |  |  |
| Raspberries | 2-3 | 34 | 1.1 | 15 | very good | 31-41 | -0.6 to 5 | 30.4 | -0.9 |
| Rhubarb | 14-21 | 34 | 1.1 | 15 | none | 31-41 | -0.6 to 5 | 30.3 | -0.9 |
| Rutabagas | 60-120 | 33-34 | 0.6-1.1 | 15 | none/slight | 31-41 | -0.6 to 5 | 30.1 | -1.1 |
| Salsify | 60-120 | 33-34 | 0.6-1.1 | 15 | none/slight | 31-41 | -0.6 to 5 | 30.1 | -1.1 |
| Sapatas (Sapodilla \& Mamey Sapote) | 14-28 | 58 | 14.4 | 30 | good | 54-60 | 12.2 to 15.6 |  |  |


| Scorzonera - Black Salsify | 180 | 33-34 | 0.6-1.1 | 15 | good | 32-41 | 0 to 5 |  |  |
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| Shallots | 21-28 | 32 | 0 | 30 | good | 31-41 | -0.6 to 5 |  |  |
| Soursop | 21 | 59 | 15 | 60 | none | 59-68 | 15 to 20 |  |  |
| Spinach | 10-14 | 33-34 | 0.6-1.1 | 45 | fair | 32-41 | 0 to 5 | 31.5 | -0.3 |
| Starfruit (Carambola) | 28-42 | 42-50 | 5.6-10 | 15 | No published information | 40-55 | 4.4 to 12.8 |  |  |
| Straw berries | 5-10 | 33 | 0.6 | 15 | excellent | 31-41 | -0.6 to 5 | 30.6 | -0.8 |
| Summer Squash | 10-14 | 41-50 | 40091 | 15 | none/slight | 41-55 | 5 to 12.8 | 31.1 | -0.5 |
| Swiss Chard | 30-60 | 33-34 | 0.6-1.1 | 30 | good | 31-34 | -0.6 to 1.1 |  |  |
| Tamarilloes | 36-70 | 37-39 | 2.8-3.9 | 30 | No published information | 37-50 | 2.8 to 10 |  |  |
| Tamarinds | 21-28 | 45 | 7.2 | closed | none | 45-60 | 7.2 to 15.6 |  |  |
| Tangerine/ Mandarin | 14-42 | 41-46 | 5-7.8 | 15 | none/slight | 38-50 | 3.3 to 10 | 30.1 | -1.1 |
| Tomatilloes | 21 | 55 | 12.8 | closed | none | 55-60 | 12.8 to 15.6 |  |  |
| Tomato, Light Red | 10-14 | 50-55 | 10-12.8 | 15 | good | 50-65 | 10-18.3 | 30 | -1.1 |
| Tomato, Mature-green | 14-21 | 55-60 | 12.8-15.5 | 15 | good | 50-65 | 10-18.3 | 30 | -1.1 |
| Uglifruit | 14-21 | 40 | 4.4 | closed | none | 40-50 | 4.4 to 10 | 30.1 | -1.1 |
| Water Chestnuts | 100-128 | 33-34 | 0.6-1.1 | 15 | none | 32-50 | 0 to 10 |  |  |
| Watercress | 14-21 | 33 | 0.6 | 45 | none | 32-41 | 0 to 5 | 31.5 | -0.3 |
| Watermelons, Seeded or Seedless | 14-21 | 50-59 | 42278 | 15 | none/slight | 50-60 | 10 to 18.3 | 30.9 | -0.6 |

FRESH MEAT

| Commodity | Post-harvest life (days) | Recommended Temperature Settings |  | Recommen- <br> ded Fresh Air Exchange (CFM) | Benefit from Modified or Controlled Atmosphere | Acceptable Receiving Pulp Temperature Range |  | Highest Freezing Point |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ |  |  | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ |
| Beef | 14-65 | 28-32 | -2.2 to 0 | closed | excellent | 28-33 | -2.2 to 0.6 | 28.4 | -2.0 |
| Buffalo | 14-65 | 28-32 | -2.2 to 0 | closed | excellent | 28-33 | -2.2 to 0.6 | 28.4 | -2.0 |
| Horse | 14-65 | 28-32 | -2.2 to 0 | closed | excellent | 28-33 | -2.2 to 0.6 | 28.4 | -2.0 |
| Lamb | 14-65 | 28-32 | -2.2 to 0 | closed | excellent | 28-33 | -2.2 to 0.6 | 28.4 | -2.0 |
| Pork | 14-65 | 28-32 | -2.2 to 0 | closed | excellent | 28-33 | -2.2 to 0.6 | 28.4 | -2.0 |
| Poultry | 14-65 | 28-32 | -2.2 to 0 | closed | excellent | 28-33 | -2.2 to 0.6 | 28.4 | -2.0 |
| Poultry, I ce Packed | 14-65 | 33 | 0.6 | closed | excellent | 27-33 | -2.8 to 0.6 | 27 | -2.8 |
| Veal | 14-65 | 28-32 | -2.2 to 0 | closed | excellent | 28-33 | -2.2 to 0.6 | 28.4 | -2.0 |


| PROCESSED MEAT |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Commodity | Post-harvest life (days) | Recommended Temperature Settings |  | Recommended Fresh Air | Benefit from Modified or Controlled Atmosphere | Acceptable Receiving Pulp Temperature Range |  | Highest Freezing Point |  |
|  |  | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ | $\begin{aligned} & \text { Exchang } \\ & \text { (CFM) } \\ & \hline \end{aligned}$ $\qquad$ |  | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ |
| Bacon (slabs or sliced) | 21-28 | 29-32 | -1.7 to 0 | closed | good | 27-41 | -2.8 to 5 | 29 | -1.7 |
| Beef, Dried | 21-28 | 29-32 | -1.7 to 0 | closed | good | 27-41 | -2.8 to 5 | 29 | -1.7 |
| Beef, Sliced | 21-28 | 41 | 5 | closed | good | 29-41 | -1.6 to 5 | 29 | -1.7 |
| Cold Cuts | 21-28 | 29-32 | -1.7 to 0 | closed | good | 27-41 | -2.8 to 5 | 29 | -1.7 |
| Franks | 21-28 | 29-32 | -1.7 to 0 | closed | good | 27-41 | -2.8 to 5 | 29 | -1.7 |
| Hams, Baked | 21-28 | 29-32 | -1.7 to 0 | closed | good | 28-41 | -2.2 to 5 | 29 | -1.7 |
| Hams, Boiled | 21-28 | 29-32 | -1.7 to 0 | closed | good | 27-41 | -2.8 to 5 | 29 | -1.7 |
| Hams, Smoked | 21-28 | 27 | -2.8 | closed | good | 27-41 | -2.8 to 5 | 29 | -1.7 |
| Sausages | 21-28 | 27 | -2.8 | closed | good | 27-41 | -2.8 to 5 | 29 | -1.7 |

## DAIRY

| Commodity | Post-harvest life (days) | Recommended Temperature Settings |  | Recommended Fresh Air Exchange (CFM) | Benefit from Modified or Controlled Atmosphere | Acceptable Receiving Pulp Temperature Range |  | Highest Freezing Point |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ |  |  | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ |
| Butter, Fresh |  | 34 | 1.1 | closed |  | 38-48 | 3.3 to 8.9 |  |  |
| Butter, Frozen |  | 0 | -17.8 | closed |  | 0-5 | -17.8 to -5 |  |  |
| Cheese Foods |  | 45 | 7.2 | closed |  | 40-50 | 4.4 to 10 | 29 | -1.7 |
| Cheeses, Natural, Cheddar, Cottage, Roquefort, Swiss |  | 33-34 | 0.6-1.1 | closed |  | 30-39 | -1.1 to 3.9 | 29 | -1.7 |
| Cheeses, Processed, American, Brick |  | 45 | 7.2 | closed |  | 30-50 | -1.1 to 10 | 29 | -1.7 |
| Eggs | 180 | 34 | 1.1 | closed | 32-45 | 0 to 7.2 | 31 | -0.6 |  |
| I ce Cream |  | -15 | -26.1 | closed |  | 0 or below | -17.8 or below |  |  |
| Margarine |  | 0 | -17.8 | closed |  | 35-40 | 1.7 to 4.4 |  |  |
| Milk |  | 33-34 | 0.6-1.1 | closed |  | 32-39 | 0-3.9 |  |  |

## FROZEN MEAT

| Commodity | Post-harvest life (days) | Recommended Temperature Settings |  | Recommended Fresh Air Exchange (CFM) | Benefit from Modified or Controlled Atmosphere | Acceptable Receiving Pulp Temperature Range |  | Highest Freezing Point |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ |  |  | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ |
| Beef |  | 0 | -17.8 | closed |  | 0-15 | -17.8 to -9.4 |  |  |
| Buffalo |  | 0 | -17.8 | closed |  | 0-15 | -17.8 to -9.4 |  |  |
| Horse |  | 0 | -17.8 | closed |  | 0-15 | -17.8 to -9.4 |  |  |
| Lamb |  | 0 | -17.8 | closed |  | 0-15 | -17.8 to -9.4 |  |  |
| Pork |  | 0 | -17.8 | closed |  | 0-15 | -17.8 to -9.4 |  |  |
| Poultry |  | 0 | -17.8 | closed |  | 0-15 | -17.8 to -9.4 |  |  |
| Veal |  | 0 | -17.8 | closed |  | 0-15 | -17.8 to -9.4 |  |  |

## FROZEN SEAFOOD

| Commodity | Post-harvest life (days) | Recommended Temperature Settings |  | Recommen- <br> ded Fresh <br> Air <br> Exchange <br> (CFM) | Benefit from Modified or Controlled Atmosphere | Acceptable Receiving Pulp Temperature Range |  | Highest Freezing Point |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ |  |  | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ |
| Crabs | 120-360 | 0 | -17.8 | closed |  | 0-15 | -17.8 to -9.4 |  |  |
| Fish, Fatty, Herring, Mackerel | 120-240 | 0 to -5 | -17.8 to 20.6 | closed |  | 0-15 | -17.8 to -9.4 |  |  |
| Fish, Lean - Cod, Flounder, Pomfret | 240-300 | 0 | -17.8 | closed |  | 0-15 | -17.8 to -9.4 |  |  |
| Lobsters | 120-360 | 0 | -17.8 | closed |  | 0-15 | -17.8 to -9.4 |  |  |
| Scallops | 120-360 | 0 | -17.8 | closed |  | 0-15 | -17.8 to -9.4 |  |  |
| Shrimp | 120-360 | 0 | -17.8 | closed |  | 0-15 | -17.8 to -9.4 |  |  |
| Surimi | 120-360 | -15 | -26.1 | closed |  | 0 or below | -17.8 or below |  |  |

## CUT FLOWERS

| Commodity | Post-harvest life (days) | Recommended Temperature Settings |  | Recommen- <br> ded Fresh <br> Air <br> Exchange <br> (CFM) | Benefit from Modified or Controlled Atmosphere | Acceptable Receiving Pulp Temperature Range |  | Highest Freezing Point |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ |  |  | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ |
| Alstroemeria | 14-21 | 33-36 | 0.6-2.2 | 15 | slight | 32-38 | 0 to 3.3 | 31 | -0.6 |
| Anthurium | 14-21 | 55 | 12.8 | 15 | good | 32-38 | 0 to 3.3 | 31.2 | -0.4 |
| Carnation | 14-28 | 34 | 1.1 | 15 | No published information | 32-38 | 0 to 3.3 | 31 | -0.6 |
| Christmas Trees | 30+ | 32 | 0 | 15 | No published information | 30-60 | -1.1 to 15.6 | N/A |  |
| Chrysanthemum | 21-28 | 32 | 0 | 15 | none | 32-38 | 0 to 3.3 | 30 | -1.1 |
| Flower Bulbs, Crocus/ Daffodil/ I ris, Tulip | 42+ | 63 | 17.2 | 15 | No published information |  |  |  |  |
| Flowering \& Foliage Plants | 42+ | 59 | 15 | 75 | No published information |  |  |  |  |
| Freesia | 7 | 36 | 2.2 | 15 | none | 32-38 | 0 to 3.3 | 31 | -0.6 |
| Ferns | 30+ | 36 | 2.2 | 15 | No published information | 32-38 | 0 to 3.3 | N/A |  |
| Lisianthus | N/A | 33 | 0.6 | 15 | No published information | 32-38 | 0 to 3.3 | 31 | -0.6 |

