

Table 1 Storage Requirements and Properties of Perishable Products

Commodity	Storage Temp., F	Relative Humidity, %	Approximate Storage Life	Water Content, %	Highest Freezing Point, F	Specific Heat Above Freezing*	Specific Heat Below Freezing*	Latent Heat (Calculated) Btu
Apples (Chapter 47)	30-32	85-90	See Chapter 24	84.1	29.3	0.87	0.45	121
Apricots	31-32	85-90	1-2 weeks	85.4	30.1	0.88	0.46	122
Artichokes (Globe)	31-32	90-95	1-2 weeks	83.7	29.9	0.87	0.45	120
Jerusalem	31-32	90-95	2-5 months	79.5	27.5 ^a	0.83	0.44	114
Asparagus	32	90-95	3-4 weeks	93.0	30.9	0.94	0.48	134
Avocados	45-55	85-90	4 weeks	65.4	31.5	0.72	0.40	94
Bananas (Chapter 47)	—	85-95	—	74.8	30.6	0.80	0.42	108
Beans (Green or snap)	45	85-90	8-10 days	83.9	30.7	0.91	0.47	128
Lima	32-40	85-90	10-15 days	66.5	31.0	0.73	0.40	94
Beer, barreled*	35-40	—	3-10 weeks	90.2	28.0 ^a	0.92	—	—
Beets	—	—	—	—	—	—	—	—
Bunch	32	90-95	10-14 days	87.6	31.3	—	—	—
Topped	32	90-95	1-3 months	87.6	30.1	0.90	0.46	126
Blackberries	31-32	85-90	7 days	84.8	30.5	0.88	0.46	122
Blueberries	31-32	85-90	3-6 weeks	82.3	29.7	0.86	0.45	118
Bread (Chapter 34)	0	—	several weeks	32-37	—	0.70	0.34	46-53
Broccoli, sprouting	32	90-95	7-10 days	89.9	30.9	0.92	0.47	130
Brussels sprouts	32	90-95	3-4 weeks	84.9	30.5	0.88	0.46	122
Cabbage, late	32	90-95	3-4 months	92.4	30.4	0.94	0.47	132
Candy (Chapter 50)	0-34	40-65	—	—	—	—	—	—
Carrots	—	—	—	—	—	—	—	—
Bunch	32	90-95	10-14 days	—	—	—	—	—
Prepackaged	32	90-90	3-4 weeks	—	29.5	—	—	—
Topped	32	90-95	4-5 months	88.2	29.5	0.90	0.46	126
Cauliflower	32	90-95	2-3 weeks	91.7	30.6	0.93	0.47	132
Celery	31-32	90-95	3-4 months	88.3	30.3	0.91	0.46	126
Celery	31-32	90-95	2-4 months	93.7	31.1	0.95	0.48	135
Cherries	31-32	85-90	10-14 days	83.0	28.8	0.87	0.45	120
Cocanuts	32-35	80-85	1-2 months	46.9	30.4	0.58	0.34	67
Coffee (green)	35-37	80-85	2-4 months	10-15	—	—	—	—
Corn, sweet	31-32	85-90	4-8 days	73.9	30.9	0.79	0.42	106
Cranberries*	30-40	85-90	1-4 months	87.4	30.4	0.90	0.46	124
Cucumbers*	45-50	90-95	10-14 days	96.1	31.1	0.97	0.49	137
Currants	32	80-85	10-14 days	84.7	30.2	0.88	0.45	120
Dairy products	—	—	—	—	—	—	—	—
Cheese (Chapter 32)	35	65-70	—	37-38	28.0 ^a	0.50	0.31	54
Butter (Chapter 32)	32-36	80-85	2 months	15.5-16.5	—	0.33	—	23
Butter	—10-20	80-85	1 year	15.5-16.5	—	0.25	—	23
Creamed (sweetened)	—15	—	several months	72.5	—	0.78	0.42	104
Ice cream (Chapter 43)	—15	—	several months	62.0	—	0.70	0.39	89
Milk, fluid whole	—	—	—	—	—	—	—	—
Pasteurized Grade A	33	—	7 days	87.0	31.0 ^a	0.90	—	125
Condensed, sweetened	40	—	several months	28.0	—	0.42	—	40
Evaporated	Room Temp	—	1 year, plus	74.0	—	0.72	—	106
Milk, dried	—	—	—	—	—	—	—	—
Whole milk	45-55	low	few months	2-3	—	0.22	—	4
Non-fat	45-55	low	several months	2-3	—	0.22	—	4
Dates (Chapter 50)	—	—	—	20.0	3.7	0.36	0.28	29
Dewberries	31-32	85-90	7-10 days	—	29.7	—	—	—
Dried fruits (Chapter 50)	32	50-60	9-12 months	—	—	0.30-0.32	—	17-21
Eggplant	45-50	85-90	10 days	92.7	30.6	0.94	0.48	132
Eggs (Chapter 49)	—	—	—	—	—	—	—	—
Shell	29-32	80-85	6-9 months	66.0	28.0 ^a	0.74	0.40	96
Shell, farm cooler	50-55	70-75	—	66.0	28.0 ^a	0.74	0.40	96
Frozen, whole	0 or below	—	1 year, plus	74.0	—	0.42	—	106
Frozen, yolk	0 or below	—	1 year, plus	55.0	—	0.36	—	79
Frozen, white	0 or below	—	1 year, plus	88.0	—	0.46	—	126
Whole egg solids	35-40	low	6-12 months	2-4	—	0.22	0.21	4
Yolk solids	35-40	low	6-12 months	3-5	—	0.23	0.21	6
Flake albumen solids	Room Temp	low	1 year, plus	12-16	—	0.31	0.24	20
Dried spray albumen solids	Room Temp	low	1 year, plus	5-8	—	0.26	0.22	11
Endive (cassiole)	32	90-95	2-3 weeks	93.3	31.9	0.94	0.48	132
Figs (Chapter 50)	—	—	—	—	—	—	—	—
Dried	32-40	50-60	9-12 months	24.0	—	0.39	0.27	34
Fresh	28-32	85-90	5-7 days	78.0	27.6	0.82	0.43	112

Table 1 Storage Requirements and Properties of Perishable Products (Continued)

Commodity	Storage Temp., F	Relative Humidity, %	Approximate Storage Life	Water Content, %	Highest Freezing Point, F	Specific Heat Above Freezing*	Specific Heat Below Freezing*	Latent Heat (Calculated) Btu
Fish (Chapters 31 and 40)	—	—	—	—	—	—	—	—
Fresh	33-35	90-95	5-15 days	62-85	28.0 ^a	0.80	—	84
Frozen	—10-0	90-95	8-10 months	62-85	—	—	0.40	89-122
Smoked	40-50	50-60	6-8 months	—	—	0.70	0.39	92
Brine salted	40-50	90-95	10-12 months	—	—	0.76	0.41	100
Mild cured	28-35	75-90	4-8 months	—	—	0.76	0.41	100
Frozen-pack fruits (Chapter 38)	—10-0	—	6-12 months	—	—	—	—	—
Frozen-pack vegetables	—10-0	—	6-12 months	—	—	—	—	—
(Chapter 38)	—	—	—	—	—	—	—	—
Fum and Fabrics*	—	—	—	—	—	—	—	—
Garlic, dry	32	70-75	6-8 months	74.2	30.5	0.79	0.42	106
Gooseberries	31-32	80-85	3-4 weeks	88.9	30.0	0.90	0.46	128
Grapefruit (Chapter 48)	32-50	85-90	4-8 weeks	88.8	30.0	0.91	0.46	126
Grapes (Chapter 47)	—	—	—	—	—	—	—	—
American type	31-32	85-90	3-8 weeks	81.9	29.7	0.86	0.44	116
European type	30-31	85-90	3-6 months	81.6	28.1	0.86	0.44	116
Honey	—	—	1 year, plus	18.0	—	0.35	0.26	26
Hops (Chapter 35)	29-32	50-60	several months	—	—	—	—	—
Horse radish	32	90-95	10-12 months	73.4	28.7	0.78	0.42	104
Kale	32	90-95	2-3 weeks	86.6	31.1	0.89	0.46	124
Kohlrabi	32	90-95	2-4 weeks	90.1	30.2	0.92	0.47	128
Lard (without antioxidant)	45	90-95	4-8 months	0	—	—	—	—
Lard (with antioxidant)	0	95-98	12-14 months	—	—	—	—	—
Leeks, green	32	90-95	1-3 months	88.2	30.7	0.90	0.46	126
Lemons (Chapter 48)	32, 55-58	85-90	1-4 months	89.3	29.4	0.92	0.46	127
Lettuce	32	90-95	3-4 weeks	94.8	31.7	0.96	0.48	136
Limes	48-50	85-90	6-8 weeks	86.0	29.1	0.89	0.46	122
Logan blackberries	31-32	85-90	5-7 days	82.9	29.7	0.86	0.45	118
Maple syrup	—	—	—	35.5	—	0.49	0.31	51
Meat (Chapters 31 and 41)	—	—	—	—	—	—	—	—
Bacon—Frozen	—10-0	90-95	4-6 months	13-29	—	0.30-0.43	0.24-0.29	18-41
Cured (Farm style)	60-65	85	4-6 months	—	—	—	—	—
Cured (Packer style)	34-40	85	2-6 weeks	—	—	—	—	—
Beef—Fresh	32-34	88-92	1-6 weeks	62-77	28-29 ^a	0.70-0.84	0.38-0.43	89-110
Frozen	—10-0	90-95	9-12 months	—	—	—	—	—
Fat backs	34-36	85-90	0-3 months	6-12	—	0.25-0.30	0.22-0.24	9-17
Hams and shoulders—Fresh	32-34	85-90	7-12 days	47-54	28-29 ^a	0.58-0.63	0.34-0.36	67-77
Frozen	—10-0	90-95	6-8 months	—	—	—	—	—
Cured	60-65	80-85	0-3 years	40-45	—	0.52-0.56	0.32-0.33	57-64
Lamb—Fresh	32-34	85-90	5-12 days	60-70	28-29 ^a	0.68-0.76	0.38-0.51	86-100
Frozen	—10-0	90-95	8-10 months	—	—	—	—	—
Livers—Frozen	—10-0	90-95	3-4 months	70.0	—	—	—	100
Pork—Fresh	32-34	85-90	3-7 days	32-44	28-29 ^a	0.48-0.54	0.30-0.32	50-60
Frozen	—10-0	90-95	4-6 months	—	—	—	—	—
Smoked Sausage	40-45	85-90	—	—	—	—	—	—
Sausage Casings	40-45	95-90	—	—	—	—	—	—
Veal	32-34	90-95	5-10 days	64-70	28-29 ^a	0.71-0.76	0.39-0.41	92-100
Mangoes	50	85-90	2-3 weeks	81.4	30.3	0.85	0.44	117
Melons, Cantaloupe	32-40	85-90	5-15 days	92.0	29.9	0.93	0.48	132
Persian	45-50	85-90	1-2 weeks	92.7	30.5	0.94	0.48	132
Honey Dew and Honey Ball	45-50	85-90	2-4 weeks	92.6	30.3	0.94	0.48	132
Casaba	45-50	85-90	4-6 weeks	92.7	30.1	0.94	0.48	132
Watermelons	36-40	85-90	2-3 weeks	92.1	31.3	0.97	0.48	132
Mushrooms*	32-35	85-90	3-5 days	91.1	30.4	0.93	0.47	130
Mushroom spawn	—	—	—	—	—	—	—	—
Manure spawn	34	75-80	8 months	—	—	—	—	—
Grain spawn	32-40	75-80	2 weeks	—	—	—	—	—
Nursery stock (Table 4)	32-35	85-90	3-6 months	—	—	—	—	—
Nuts (Chapter 50)	—	—	—	—	—	—	—	—
Oil (vegetable salad)	32-50 ^a	65-75	8-12 months	3-6	—	0.22-0.25	0.21-0.22	4-8
Okra	35	—	1 year	0	—	—	—	—
Oleomargarine	50	85-95	7-10 days	89.8	28.7	0.92	0.46	128
Olives, fresh	35	60-70	1 year	15.5	—	0.32	0.25	22
Onions and onion sets	45-50	85-90	4-6 weeks	75.2	29.4	0.80	0.42	108
Oranges (Chapter 49)	32	70-75	6-8 months	87.5	30.6	0.90	0.46	124
Orange juice, chilled	32-34	85-90	8-12 weeks	87.2	30.6	0.90	0.46	124