

AFAM+ Guidelines

Compiled by Drs. Patrick E Brecht and Jeffrey K Brecht

Handling Guidelines										
Code	Product	Carrying Temperature C (F)	RH	VFD	AFAM			AFAM+		Max. Time at temp./CO2
			(%)	dt C (F)	cfm	cmh	Delay hrs	CO2 max%	O2 min%	
1.00	Beef, fresh	- 1.7 to 0 (29 to 32)	85-92	0.6(1)	0	0	0			
	Beef, carcass	0 to 3.9 (32 to 39)	85-90	0.6(1)	0	0	0			
	Horse	- 1.7 to 0 (29 to 32)	85-90	0.6(1)	0	0	0			
	Liver	0 (32)	90	0.6(1)	0	0	0			
	Veal	0 to 1.1 (32 to 34)	90	0.6(1)	0	0	0			
	Fresh Lamb	0 to 1.1 (32 to 34)	85-90	0.6(1)	0	0	0			
	Choice lamb	0 (32)	85	0.6(1)	0	0	0			
	Leg, Choice	0 (32)	95	0.6(1)	0	0	0			
	Pork	0 to 1.1 (32 to 34)	85-90	0.6(1)	0	0	0			
	Poultry- ice packed	- 2.2 to 0 (28 to 32)	95-100	0.6(1)	0	0	0			
	Poultry- Fresh	- 2.2 to 0 (28 to 32)	95-100	0.6(1)	0	0	0			
	Chicken, all classes	- 2.2 to 0 (28 to 32)	95-100	0.6(1)	0	0	0			
	Turkey, all classes	- 2.2 to 0 (28 to 32)	95-100	0.6(1)	0	0	0			
	Duck	- 2.2 to 0 (28 to 32)	95-100	0.6(1)	0	0	0			
	Veal	0 to 1.1 (32 to 34)	95-100	0.6(1)	0	0	0			
	Rabbit	0 to 1.1 (32 to 34)	90-95	0.6(1)	0	0	0			
	2.00	Canned, non-perishable	- 3.3 to - 1.1 (26 to 30)	70 or less	0.6(1)	0	0	0		
Dried, chipped		10 to 15 (50 to 59)	15	0.6(1)	0	0	0			
Ham, cured		- 3.3 (26)	-	0.6(1)	0	0	0			
Bacon, medium fat		2.8 to 5 (37 to 41)	80-85	0.6(1)	0	0	0			
Bacon, cured, farm style		16.1 to 17.8 (61 to 64)	85	0.6(1)	0	0	0			
Bacon, Packer style		1.1 to 3.9 (34 to 39)	85	0.6(1)	0	0	0			
3.00	Beef	- 28.9 to - 17.8 (- 20 to 0)	N/A	1(1.8)	0	0	0			
	Horse	- 28.9 to - 17.8 (- 20 to 0)	N/A	1(1.8)	0	0	0			
	Lamb	- 28.9 to - 17.8 (- 20 to 0)	N/A	1(1.8)	0	0	0			
	Bacon	- 23.3 to - 17.8 (- 10 to 0)	N/A	1(1.8)	0	0	0			
	Ham, fresh, frozen	- 23.3 to - 17.8 (- 10 to 0)	N/A	1(1.8)	0	0	0			

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	Ham, cured	- 23.3 to - 17.8 (- 10 to 0)	N/A	1(1.8)	0	0	0			
	Pork	- 28.9 to - 17.8 (- 20 to 0)	N/A	1(1.8)	0	0	0			
	Poultry	- 23.3 to - 17.8 (- 10 to 0)	N/A	1(1.8)	0	0	0			
4.00	Haddock, Cod, Perch	- 0.6 to 1.1 (31 to 34)	95-100	0.6(1)	0	0	0			
	Hake, Whiting	0 to 1.1 (32 to 34)	95-100	0.6(1)	0	0	0			
	Halibut	- 0.6 to 1.1 (31 to 34)	95-100	0.6(1)	0	0	0			
	Herring, Kipperd, Smkd	0 to 2.2 (32 to 36)	80-90	0.6(1)	0	0	0			
	Mackerel	0 to 1.1 (32 to 34)	95-100	0.6(1)	0	0	0			
	Menhaden	1.1 to 5 (34 to 41)	95-100	0.6(1)	0	0	0			
	Salmon	- 0.6 to 1.1 (31 to 34)	95-100	0.6(1)	0	0	0			
	Tuna	0 to 2.2 (32 to 36)	95-100	0.6(1)	0	0	0			
5.00	Clams	- 1.7 (29)	85-90	0.6(1)	0	0	0			
	Crabmeat, Pasteurized	0 to 1.1 (32 to 34)	-	0.6(1)	0	0	0			
	Scallop meat	0 to 1.1 (32 to 34)	95-100	0.6(1)	0	0	0			
	Shrimp	- 0.6 to 1.1 (31 to 34)	95-100	0.6(1)	0	0	0			
	Lobster, live	5 to 10 (41 to 50)	In Water	0.6(1)	0	0	0			
	Lobster, fresh meat	- 1.1 to 0 (30 to 32)	90-95	0.6(1)	0	0	0			
	Oysters, meat, liq	0 to 2.2 (32 to 36)	100	0.6(1)	0	0	0			
	Oysters, clams in shell	5 to 10 (41 to 50)	95-100	0.6(1)	0	0	0			
6.00	Fatty	- 28.9 to - 23.3 (- 20 to - 10)		1(1.8)	0	0	0			
	Lean	- 28.9 to - 23.3 (- 20 to - 10)		1(1.8)	0	0	0			
	Shrimp	- 28.9 to - 23.3 (- 20 to - 10)		1(1.8)	0	0	0			
	Scallops	- 28.9 to - 23.3 (- 20 to - 10)		1(1.8)	0	0	0			
	Crab	- 28.9 to - 23.3 (- 20 to - 10)		1(1.8)	0	0	0			

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	Lobsters	- 28.9 to - 23.3 (- 20 to - 10)		1(1.8)	0	0	0			
7.00	Fresh Eggs, shell	- 1.7 to - 0.6 (29 to 31)	85-92	0.6(1)	0	0	0			
8.00	Natural	0 to 1.1 (32 to 34)	65		0	0	0			
	Processed	0 to 1.1 (32 to 34)	65		0	0	0			
	Roquefort	0 to 1.1 (32 to 34)	65		0	0	0			
	Swiss	0 to 1.1 (32 to 34)	65		0	0	0			
	Cheese Foods	4.4 to 7.2 (40 to 45)	65		0	0	0			
9.00	Fresh	0 (32)	70-75	0.6(1)	0	0	0			
	Frozen	- 23.3 (- 10)	N/A	1(1.8)	0	0	0			
	Margarine	1.7 (35)	70-75	0.6(1)	0	0	0			
10.00	Whole	0 to 1.1 (32 to 34)		0.6(1)	0	0	0			
	Dried, whole	7.2 to 21.1 (45 to 70)	Low	0.6(1)	0	0	0			
	Dried, non-fat	7.2 to 21.1 (45 to 70)	Low	0.6(1)	0	0	0			
	Evaporated	4.4 (40)		0.6(1)	0	0	0			
	Condensed, sweetened	4.4 (40)		0.6(1)	0	0	0			
	Cream, fresh, pasteurized	0 to 2.2 (32 to 36)		0.6(1)	0	0	0			
	Cream, sour	- 2.2 to 0 (28 to 32)		0.6(1)	0	0	0			
	Cream, sweetened	- 23.3 (- 10)		0.6(1)	0	0	0			
	Whey, dried	21.1 (70)	Low	0.6(1)	0	0	0			
11.00	Ice Cream	- 28.9 or lower (- 20 or lower)		0.6(1)	0	0	0			
	Frozen Dairy Desserts	- 31.7 to - 26.1 (- 25 to - 15)		0.6(1)	0	0	0			
12.00	Juice	- 23.3 to - 17.8 (- 10 to 0)		0.6(1)	0	0	0			
13.00	French Fries	- 23.3 to - 17.8		0.6(1)	0	0	0			

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		(- 10 to 0)								
	Fruits	- 23.3 to - 17.8 (- 10 to 0)		0.6(1)	0	0	0			
	Vegetables	- 23.3 to - 17.8 (- 10 to 0)		0.6(1)	0	0	0			
14.00	Acerola/Barbados cherry	0 (32)	90	0.6(1)	30	50	0			
	African horned melon/kiwano	15 (59)	90	0.6(1)	30	50	0			
	Alfalfa Sprouts	0 (32)	98	0.6(1)	30	50	0			
	Amaranth/pigweed	0 (32)	98	0.6(1)	30	50	0			
	Anise/fennel	0 (32)	95	0.6(1)	30	50	0			
	Apples, chilling sensitive	4.4 (40)	95	0.6(1)	15	25	0	2	19	3 mo
	Apples, not chilling sensitive	- 1.1 (30)	95	0.6(1)	45	75	0	2	19	4 mo
	Apricot	0.0	95	0.6(1)	15	25	24	5	16	2 wk
	Artichoke, globe	0 (32)	98	0.6(1)	45	75	0	3	18	3 wk
	Arugula	0 (32)	98	0.6(1)	45	75	0			
	Asian pear/Nashi	1.1 (34)	95	0.6(1)	15	25	24	2	19	4 mo
	Asparagus, green or white	2.5 (36.5)	98	0.6(1)	60	100	12	10	11	3 wk
	Atemoya	12.8 (55)	90	0.6(1)	30	50	24	10	11	4 wk
	Avocado, Booth, Lula	4.4 (40)	95	0.6(1)	30	50	24	10	11	4 wk
	Avocado, Fuchs, Pollock	12.8 (55)	90	0.6(1)	30	50	24	10	11	2 wk
	Avocado, Fuerte, Hass	5 (41)	90	0.6(1)	30	50	24	10	11	2 wk
	Babaco/mountain papaya	7.2 (45)	90	0.6(1)	30	50	0			
	Banana, green	14.4 (58)	95	0.6(1)	15	25	24	5	16	3 wk
	Barbados cherry/acerola	0.0	90	0.6(1)	30	50	0			
	Basil	10 (50)	90	0.6(1)	30	50	18	5	16	10 d
	Bean sprouts, Mung	0 (32)	98	0.6(1)	30	50	36	15	6	10 d
	Beets, bunched	0 (32)	98	0.6(1)	15	25	0			
	Beets, topped	0 (32)	98	0.6(1)	15	25	0			
	Belgian endive/witloof chicory	2.2 (36)	98	0.6(1)	45	75	0			
	Bell/green pepper/paprika	7.2 (45)	98	0.6(1)	15	25	24	5	16	4 wk
	Bittergourd/bittermelon	10 (50)	90	0.6(1)	30	50	36	15	6	2 wk
	Bittermelon/bittergourd	10 (50)	90	0.6(1)	30	50	36	15	6	2 wk
	Black salsify/scorzonera	0 (32)	98	0.6(1)	15	25	0			
	Black sapote	13.9 (57)	90	0.6(1)	30	50	0			

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	Blackberry	0 (32)	95	0.6(1)	30	50	36	20	2	1 wk
	Blood orange	6.7 (44)	95	0.6(1)	15	25	0			
	Blueberry	0 (32)	95	0.6(1)	15	25	36	20	2	2 wk
	Bok choy	0 (32)	98	0.6(1)	30	50	0			
	Breadfruit	15 (59)	90	0.6(1)	30	50	0			
	Broad bean/fava bean	0 (32)	95	0.6(1)	30	50	0			
	Broccoli	0 (32)	98	0.6(1)	30	50	24	10	11	4 wk
	Brussels sprouts	0 (32)	98	0.6(1)	30	50	18	7	14	5 wk
	Cabbage, early crop	0 (32)	98	0.6(1)	15	25	24	6	15	6 wk
	Cabbage, late crop	0 (32)	98	0.6(1)	15	25	24	6	15	6 mo
	Cactus fruit/prickly pear fruit	5 (41)	90	0.6(1)	30	50	18	5	16	3 wk
	Cactus leaves/nopalito	5 (41)	95	0.6(1)	30	50	18	5	16	3 wk
	Caimito/star apple	2.8 (37)	90	0.6(1)	30	50	0			
	Calabash squash/winter (hard rind)	12.2 (54)	60		15	25	36	10	11	2 mo
	Calamondin orange	10 (50)	90	0.6(1)	15	25	0			
	Canistel/eggfruit	15 (59)	90	0.6(1)	30	50	0			
	Cantaloupe/netted melons	2.2 (36)	95	0.6(1)	15	25	48	18	3	3 wk
	Carambola/starfruit, color break	5 (41)	90	0.6(1)	15	25	0	3	18	4 wk
	Carambola/starfruit, ripe	1.1 (34)	90	0.6(1)	15	25	24	6	15	4 wk
	Carrots, bunched;immature	0 (32)	98	0.6(1)	30	50	0			
	Carrots, topped	0 (32)	98	0.6(1)	15	25	0			
	Casaba melon	10 (50)	90	0.6(1)	30	50	24	10	11	3 wk
	Cashew apple	2.2 (36)	90	0.6(1)	30	50	0			
	Cassava/yucca/manioc	5 (41)	90	0.6(1)	15	25	0			
	Cauliflower	0 (32)	98	0.6(1)	30	50	0	4	17	3 wk
	Celeriac	0 (32)	98	0.6(1)	15	25	0			
	Celery	0 (32)	98	0.6(1)	15	25	24	5	16	2 mo
	Chard	0 (32)	98	0.6(1)	30	50	0			
	Chayote	7.2 (45)	90	0.6(1)	15	25	0			
	Cherimoya/custard apple	12.8 (55)	95	0.6(1)	60	100	12	10	11	2 wk
	Cherry, sour	0 (32)	95	0.6(1)	15	25	0			
	Cherry, sweet	0 (32)	95	0.6(1)	15	25	48	15	6	3 wk
	Chicosapote/sapodilla	15.6 (60)	90	0.6(1)	30	50	24	10	11	2 wk
	Chilis/hot pepper	7.2 (45)	95	0.6(1)	30	50	36	15	6	3 wk

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	Chinese artichoke	0 (32)	98	0.6(1)	30	50	0			
	Chinese broccoli/Gailan	0 (32)	98	0.6(1)	30	50	0			
	Chinese cabbage/Napa	0 (32)	98	0.6(1)	15	25	0	1	20	2 mo
	Chinese date/jujube	3.3 (38)	90	0.6(1)	30	50	0			
	Chinese gooseberries/kiwifruit	0 (32)	95	0.6(1)	15	25	24	7	14	3 mo
	Chinese okra/luffa	12.2 (54)	95	0.6(1)	30	50	0			
	Chinese parsley/cilantro	2.2 (36)	98	0.6(1)	45	75	18	10	11	2 wk
	Chives	0 (32)	98	0.6(1)	30	50	0			
	Cilantro/Chinese parsley	2.2 (36)	98	0.6(1)	45	75	18	10	11	2 wk
	Clementine/tangerine/mandarine	4.4 (40)	95	0.6(1)	15	25	24	5	16	4 wk
	Coconut	2.2 (36)	85	0.6(1)	30	50	0			
	Cocoyam/eddoe/dasheen/taro	8.9 (48)	90	0.6(1)	15	25	0			
	Collards	0 (32)	98	0.6(1)	30	50	0			
	Corn, Baby	0 (32)	98	0.6(1)	45	75	0			
	Corn, Supersweet	0 (32)	98	0.6(1)	45	75	24	15	6	4 wk
	Corn, Sweet	0 (32)	98	0.6(1)	45	75	24	15	6	2 wk
	Courgette/summer squash (soft rind)	7.2 (45)	95	0.6(1)	15	25	36	10	11	2 wk
	Cowpea/southern pea	4.4 (40)	95	0.6(1)	30	50	0			
	Cranberry	2.8 (37)	95	0.6(1)	15	25	0	3	18	4 mo
	Crenshaw melon	7.2 (45)	90	0.6(1)	30	50	24	10	11	2 wk
	Cucumber, fresh	12.2 (54)	90	0.6(1)	15	25	36	10	11	2 wk
	Cucumber, pickling	4.4 (40)	95	0.6(1)	30	50	0	5	16	1 wk
	Currant	0 (32)	95	0.6(1)	30	50	0			
	Custard apple/cherimoya	12.8 (55)	95	0.6(1)	60	100	12	10	11	2 wk
	Custard apples/sweetsop/sugar apple	7.2 (45)	90	0.6(1)	30	50	18	5	16	4 wk
	Daikon/Oriental radish/lo bok	0 (32)	98	0.6(1)	30	50	0			
	Dasheen/taro/cocoyam/eddoe	8.9 (48)	90	0.6(1)	15	25	0			
	Dates	0 (32)	75	0.6(1)	15	25	0			
	Dewberry	0 (32)	95	0.6(1)	30	50	0			
	Dill	0 (32)	98	0.6(1)	15	25	0			
	Durian, ripe	4.4 (40)	90	0.6(1)	30	50	24	10	11	9 d
	Durian, unripe	12.8 (55)	90	0.6(1)	30	50	36	15	6	5 wk
	Eddoe/dasheen/taro/cocoyam	8.9 (48)	90	0.6(1)	15	25	0			
	Eggfruit/canistel	15 (59)	90	0.6(1)	30	50	0			

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	Eggplant	11.1 (52)	95	0.6(1)	30	50	18	10	11	2 wk
	Elderberry	0 (32)	95	0.6(1)	30	50	0			
	Endive/escarole	0 (32)	98	0.6(1)	45	75	0			
	Epazote	2.2 (36)	95	0.6(1)	30	50	0			
	Escarole/endive	0 (32)	98	0.6(1)	45	75	0			
	Fava bean/broad bean	0 (32)	95	0.6(1)	30	50	0			
	Feijoa/pineapple guava	5 (41)	90	0.6(1)	30	50	0			
	Fennel/anise	0 (32)	95	0.6(1)	30	50	0			
	Fig, fresh	0 (32)	90	0.6(1)	15	25	0			
	Gailan/Chinese broccoli	0 (32)	98	0.6(1)	30	50	0			
	Garden cress/watercress	0 (32)	98	0.6(1)	45	75	0			
	Garlic	0 (32)	70		15	25	36	10	11	6 mo
	Ginger	12.8 (55)	65		30	50	0			
	Globe artichoke	0 (32)	98	0.6(1)	45	75	0	3	18	3 wk
	Gooseberry	0 (32)	95	0.6(1)	15	25	0			
	Grapefruit, CA/AZ/dry areas	14.4 (58)	90	0.6(1)	30	50	0	5	16	6 wk
	Grapefruit, FL/humid areas	10 to 16.1 (50 to 61)	90	0.6(1)	15	25	36	10	11	6 wk
	Grapes, American	- 0.6 (31)	95	0.6(1)	15	25	0			
	Grapes, Table option 1	0 (32)	95	0.6(1)	15	25	36	10	11	4 wk
	Grapes, Table option 2	0 (32)	95	0.6(1)	15	25	48	15	6	2 wk
	Green/snap/wax beans	7.2 (45)	95	0.6(1)	30	50	18	8	13	2 wk
	Guava	7.8 (46)	90	0.6(1)	30	50	0			
	Guava, pineapple/feijoa	5 (41)	90	0.6(1)	30	50	0			
	Hogplum/spondias/mombin/wi apple/jobo	12.8 (55)	90	0.6(1)	30	50	0			
	Honeydew melon	7.2 (45)	90	0.6(1)	15	25	36	10	11	3 wk
	Horseradish	- 0.6 (31)	98	0.6(1)	15	25	0			
	Jaboticaba	12.8 (55)	95	0.6(1)	30	50	0			
	Jackfruit	12.8 (55)	90	0.6(1)	30	50	0			
	Jerusalem artichoke	0 (32)	95	0.6(1)	15	25	0			
	Jicama/yambean	12.8 (55)	90	0.6(1)	15	25	0			
	Jobo/hogplum/spondias/mombin/wi apple	12.8 (55)	90	0.6(1)	30	50	0			
	Jujube/Chinese date	3.3 (38)	90	0.6(1)	30	50	0			
	Kakis/persimmon, Fuyu, Hachiya	0 (32)	95	0.6(1)	15	25	24	8	13	3 mo
	Kale	0 (32)	98	0.6(1)	45	75	0			

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	Kiwano/African horned melon	15 (59)	90	0.6(1)	30	50	0			
	Kiwifruit/Chinese gooseberry	0 (32)	95	0.6(1)	15	25	24	7	14	3 mo
	Kohlrabi	0 (32)	98	0.6(1)	15	25	0			
	Kumquat	4.4 (40)	95	0.6(1)	15	25	0			
	Langsat/lanzone	14.4 (58)	90	0.6(1)	30	50	0			
	Lanzone/langsat	14.4 (58)	90	0.6(1)	30	50	0			
	Leafy greens cool season	0 (32)	98	0.6(1)	30	50	0			
	Leafy greens, warm season	7.2 (45)	95	0.6(1)	30	50	0			
	Leek	0 (32)	98	0.6(1)	30	50	0			
	Lemon	11.1 (52)	90	0.6(1)	15	25	36	10	11	4 wk
	Lettuce	0 (32)	98	0.6(1)	15	25	0	1	20	3 wk
	Lima bean	5 (41)	95	0.6(1)	30	50	0			
	Lime, Mexican/Tahiti/Persian	10 (50)	90	0.6(1)	15	25	36	10	11	6 wk
	Litchi/lychee	2.2 (36)	95	0.6(1)	15	25	24	5	16	3 wk
	Lo bok/daikon/Oriental radish	0 (32)	98	0.6(1)	30	50	0			
	Loganberry	0 (32)	95	0.6(1)	30	50	0			
	Longan	2.2 (36)	95	0.6(1)	30	50	0			
	Loquat	0 (32)	90	0.6(1)	30	50	0			
	Luffa/Chinese okra	12.2 (54)	95	0.6(1)	30	50	0			
	Lychee/litchi	2.2 (36)	95	0.6(1)	15	25	24	5	16	3 wk
	Malanga/tania/new cocoyam	7.2 (45)	80	0.6(1)	30	50	0			
	Mamey sapote	13.9 (57)	95	0.6(1)	30	50	0			
	Mandarine/Clementine/tangerine	4.4 (40)	95	0.6(1)	15	25	24	5	16	4 wk
	Mango	12.8 (55)	90	0.6(1)	30	50	24	10	11	4 wk
	Mangosteen	12.8 (55)	90	0.6(1)	30	50	0			
	Manioc/cassava/yucca	5 (41)	90	0.6(1)	15	25	0			
	Melon pear/pepino	8.9 (48)	95	0.6(1)	30	50	0			
	Minneola tangelo	7.2 (45)	95	0.6(1)	15	25	24			
	Mint	0 (32)	98	0.6(1)	30	50	0			
	Mombin/wi apple/jobob/hogplum/spondias	12.8 (55)	90	0.6(1)	30	50	0			
	Mountain papaya/babaco	7.2 (45)	90	0.6(1)	30	50	0			
	Mushrooms	0 (32)	90	0.6(1)	45	75	24	15	6	2 wk
	Mustard greens	0 (32)	95	0.6(1)	30	50	0			
	Napa/Chinese cabbage	0 (32)	98	0.6(1)	15	25	0	1	20	2 mo

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			(%)	dt C (F)	cfm	cmh	Delay hrs	CO2 max%	O2 min%	
	Nashi/asian pear	1.1 (34)	95	0.6(1)	15	25	24	2	19	4 wk
	Nectarine, option 1	0 (32)	95	0.6(1)	15	25	36	10	11	2 wk
	Nectarine, option 2	0 (32)	95	0.6(1)	15	25	48	17	4	2 wk
	Netted melon/cantaloupe	2.2 (36)	95	0.6(1)	15	25	48	18	3	3 wk
	New cocoyam/malanga/tania	7.2 (45)	80	0.6(1)	30	50	0			
	Nopalito/cactus leaves	5 (41)	95	0.6(1)	30	50	18	5	16	3 wk
	Okra	7.2 (45)	95	0.6(1)	45	75	18	10	11	2 wk
	Olive, fresh green	5 (41)	90	0.6(1)	15	25	24	5	16	4 wk
	Onions, green	0 (32)	98	0.6(1)	30	50	36	20	2	3 wk
	Onions, mature bulbs, dry	0 (32)	70		15	25	24	5	16	2 mo
	Orange flesh melons	7.2 (45)	90	0.6(1)	15	25	36	10	11	3 wk
	Oranges, Ariz./dry areas	8.9 (48)	90	0.6(1)	15	25	24	5	16	4 wk
	Oranges, California, Navel	5 (41)	90	0.6(1)	15	25	24	5	16	2 mo
	Oranges, Florida/humid regions, Valencia	1.1 (34)	90	0.6(1)	15	25	24	5	16	3 mo
	Orange flesh melons/honeydews	7.2 (45)	90	0.6(1)	15	25	36	10	11	3 wk
	Oregano	0 (32)	95	0.6(1)	30	50	0			
	Oriental radish/daikon/lo bok	0 (32)	98	0.6(1)	30	50	0			
	Oyster, vegetable/salsify	0 (32)	98	0.6(1)	15	25	0			
	Papaya	12.8 (55)	90	0.6(1)	15	25	48	10	11	3 wk
	Paprika, green/bell pepper	7.2 (45)	98	0.6(1)	15	25	24	5	16	4 wk
	Parsley	0 (32)	98	0.6(1)	60	100	6	5	16	3 wk
	Parsnips	0 (32)	98	0.6(1)	15	25	0			
	Passionfruit	10 (50)	90	0.6(1)	60	100	0			
	Peach option 1	0 (32)	95	0.6(1)	15	25	36	10	11	3 wk
	Peach option 2	0 (32)	95	0.6(1)	15	25	48	17	4	2 wk
	Pear, Anjou, Bosc, Comice, late Barletts	- 1.1 (30)	95	0.6(1)	15	25	0	1	20	4 wk
	Pear, Bartlett	- 1.1 (30)	95	0.6(1)	15	25	0	3	18	2 mo
	Peas in pods: snow, snap & sugar peas	0 (32)	98	0.6(1)	60	100	0	3	18	2 wk
	Pepino/melon pear	8.9 (48)	95	0.6(1)	30	50	0			
	Pepper, Bell/paprika, green	7.2 (45)	98	0.6(1)	15	25	24	5	16	4 wk
	Pepper, colored	5 (41)	98	0.6(1)	15	25	24	5	16	3 wk
	Peppers, Hot/chilis	7.2 (45)	95	0.6(1)	30	50	36	15	6	3 wk
	Perilla/shiso	10 (50)	95	0.6(1)	30	50	0			
	Persian melon	7.2 (45)	90	0.6(1)	30	50	24	10	11	2 wk

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	Persimmon/kakis, Fuyu,Hachiya	0 (32)	95	0.6(1)	15	25	24	8	13	3 mo
	Pigweed/amaranth	0 (32)	98	0.6(1)	30	50	0			
	Pineapple	12.8 (55)	90	0.6(1)	15	25	48	10	11	4 wk
	Plantain	15 (59)	95	0.6(1)	30	50	18	5	16	3 wk
	Plum	0 (32)	95	0.6(1)	15	25	24	5	16	4 wk
	Pomegranate	5 (41)	95	0.6(1)	15	25	36	10	11	2 mo
	Potato, early crop	12.8 (55)	95	0.6(1)	15	25	36	10	11	3 wk
	Potato, late crop	5 (41)	98	0.6(1)	15	25	0	1	20	5 mo
	Prickly pear fruit/cactus fruit	5 (41)	90	0.6(1)	30	50	18	5	16	3 wk
	Prune	0 (32)	95	0.6(1)	15	25	24	5	16	4 wk
	Pummelo	7.2 (45)	90	0.6(1)	15	25	0			
	Pumpkin/squash	12.2 (54)	60		15	25	36	10	11	2 mo
	Quince	0 (32)	90	0.6(1)	30	50	0			
	Raddichio	0 (32)	98	0.6(1)	30	50	18	5	16	3 wk
	Radish sprouts	0 (32)	98	0.6(1)	30	50	0			
	Radish, topped	0 (32)	98	0.6(1)	15	25	0	3	18	4 wk
	Rambutan	12.2 (54)	95	0.6(1)	30	50	24	12	9	2 wk
	Raspberry	0 (32)	95	0.6(1)	30	50	36	20	2	1 wk
	Rhubarb	0 (32)	98	0.6(1)	15	25	0			
	Rutabaga	0 (32)	98	0.6(1)	15	25	0			
	Sage	0 (32)	95	0.6(1)	30	50	0			
	Salsify/vegetable oyster	0 (32)	98	0.6(1)	15	25	0			
	Sapodilla/chicosapote	15.6 (60)	90	0.6(1)	30	50	24	10	11	2 wk
	Scorzonera/black salsify	0 (32)	98	0.6(1)	15	25	0			
	Seville/sour oranges	10 (50)	90	0.6(1)	15	25	36	10	11	4 wk
	Shallot	1.1 (34)	70		30	50	0			
	Shiso/perilla	10 (50)	95	0.6(1)	30	50	0			
	Snap/wax/green beans	7.2 (45)	95	0.6(1)	30	50	18	8	13	2 wk
	Sour/Seville oranges	10 (50)	90	0.6(1)	15	25	36	10	11	4 wk
	Soursop	12.8 (55)	90	0.6(1)	30	50	0			
	Southern pea/cowpea	4.4 (40)	95	0.6(1)	30	50	0			
	Spinach	0 (32)	98	0.6(1)	15	25	36	10	11	2 wk
	Spondias/mombin/wi apple/jobo/hogplum	12.8 (55)	90	0.6(1)	30	50	0			
	Squash/pumpkin	12.2 (54)	60		15	25	36	10	11	2 mo

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	Squash/winter(hard rind)/calabash	12.2 (54)	60		15	25	36	10	11	2 mo
	Star apple/caimito	2.8 (37)	90	0.6(1)	30	50	0			
	Starfruit/carambola, color break	5 (41)	90	0.6(1)	15	25	0	3	18	4 wk
	Starfruit/carambola, ripe	1.1 (34)	90	0.6(1)	15	25	24	6	15	4 wk
	Strawberry	0 (32)	95	0.6(1)	15	25	36	20	2	2 wk
	Sugar apple/custard apple/sweetsop	7.2 (45)	90	0.6(1)	30	50	18	5	16	4 wk
	Summer squash (soft rind)/courgette	7.2 (45)	95	0.6(1)	15	25	36	10	11	2 wk
	Sweetpotato/"yam"	12.8 (55)	90	0.6(1)	15	25	36	10	11	4 mo
	Sweetsop/sugar apple/custard apple	7.2 (45)	90	0.6(1)	30	50	18	5	16	4 wk
	Tamarillo/tree tomato	3.9 (39)	95	0.6(1)	30	50	0			
	Tamarind	7.2 (45)	95	0.6(1)	30	50	0			
	Tangerine/mandarine/Clementine	4.4 (40)	95	0.6(1)	15	25	24	5	16	4 wk
	Tania/new cocoyam/malanga	7.2 (45)	80	0.6(1)	30	50	0			
	Taro/cocoyam/eddoe/dasheen	8.9 (48)	90	0.6(1)	15	25	0			
	Thyme	0 (32)	95	0.6(1)	30	50	0			
	Tomatillo/husk tomato	10 (50)	90	0.6(1)	15	25	0			
	Tomato, firm ripe	10 (50)	90	0.6(1)	15	25	24	5	16	1 wk
	Tomato, mature green	12.8 (55)	95	0.6(1)	15	25	0	3	18	2 wk
	Tree tomato/tamarillo	3.9 (39)	95	0.6(1)	30	50	0			
	Turnip root	0 (32)	95	0.6(1)	15	25	0			
	Valencia oranges/ Florida/humid regions	1.1 (34)	90	0.6(1)	15	25	24	5	16	3 mo
	Water chestnut	1.1 (34)	90	0.6(1)	30	50	0			
	Watercress/garden cress	0 (32)	98	0.6(1)	45	75	0			
	Watermelon	10 (50)	90	0.6(1)	15	25	0			
	Wax/green/snap beans	7.2 (45)	95	0.6(1)	30	50	18	8	13	2 wk
	White sapote	20 (68)	90	0.6(1)	30	50	0			
	Wi apple/jobob/hogplum/spondias/mombin	12.8 (55)	90	0.6(1)	30	50	0			
	Winged bean	10 (50)	90	0.6(1)	30	50	0			
	Witloof chicory/belgian endive	2.2 (36)	98	0.6(1)	45	75	0			
	Yam (true yam)	59 (15)	80		15	25	0			
	Yam/sweetpotato	12.8 (55)	90	0.6(1)	15	25	36	10	11	4 mo
	Yambean/jicama	12.8 (55)	90	0.6(1)	15	25	0			
	Yard-long bean	6.1 (43)	95	0.6(1)	30	50	0			
	Yucca/cassava/manioc	5 (41)	90	0.6(1)	15	25	0			

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15.00	Anthurium, cut	10 (50)	85	0.6(1)	75	125	0			
	Asparagus fern, cut	1.1 (34)	95	0.6(1)	75	125	0	5	16	4 wk
	Carnation, cut	0 (32)	95	0.6(1)	75	125	0	10	11	6 wk
	Chrysanthemum, cut	0 (32)	95	0.6(1)	75	125	0	2	19	4 wk
	Chrysanthemum, potted	2.8 (37)	95	0.6(1)	75	125	0			
	Crocus	17.2 (63)	70		150	250	0	1	20	>6 wk
	Daffodil	17.2 (63)	70		150	250	0	1	20	>6 wk
	Easter lily, cut	1.1 (34)	95	0.6(1)	75	125	0	10	11	3 wk
	Easter lily, potted	3.9 (39)	95	0.6(1)	75	125	0			
	Flower bulbs/crocus,daffodil,iris,tulip	17.2 (63)	70		150	250	0	1	20	>6 wk
	Flowering and foliage plants	15 (59)	95	0.6(1)	75	125	0	1	20	>6 wk
	Gladiolus, cut	1.1 (34)	95	0.6(1)	75	125	0	5	16	3 wk
	Hyacinth bulbs	10 (50)	70		150	250	0	1	20	>6 wk
	Iris	17.2 (63)	70		150	250	0	1	20	>6 wk
	Leatherleaf fern, cut	1.1 (34)	95	0.6(1)	75	125	0	5	16	4 wk
	Lily bulbs	2.2 (36)	70		150	250	0	1	20	>6 wk
	Rose, cut	0 (32)	95	0.6(1)	75	125	0	3	18	3 wk
	Rose, potted	1.7 (35)	95	0.6(1)	75	125	0			
	Tulip	17.2 (63)	70		150	250	0	1	20	>6 wk
<i>NOTE: All chilled cargo guidelines are given for discharge air controllers and freeze cargo guidelines are for return air controllers.</i>										