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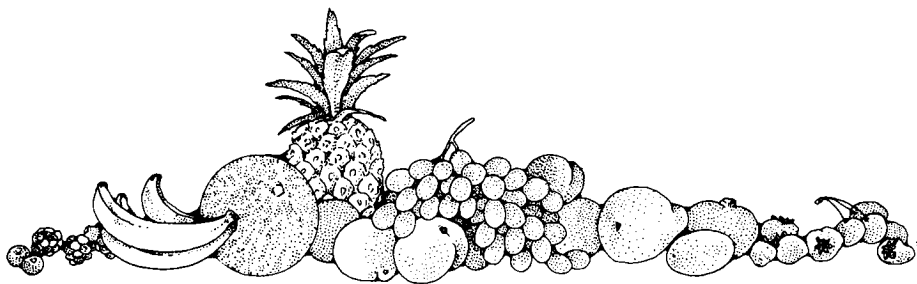
Dedicated to the dissemination of information concerning softbilled birds among interested persons worldwide and to promote the establishment of captive self-sustaining populations of such birds through effective husbandry and management practices.

Membership in the International Softbill Society is open to anyone with an interest in softbills. **Individual membership is \$20.** Foreign membership (outside U.S.A.) add \$5 (total \$25) in U.S. funds. Write to **Ken Reininger, 3120 Cedar Vale Rd., Nedrow, New York 13120.** Members receive our informative publication, *The Honeycreeper*.

**Greenwings
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- ALL BIRDS ARE CLOSED BANDED and VETERINARIAN CHECKED
- UNRELATED PAIRS AVAILABLE

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Fruit in the Avian Diet

by Joanne Abramson
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Virtually all psittacines and softbills eat some type of fruit in the wild. Certain species, such as lories, mynahs and toucans, eat large amounts of fruit daily.

Fruit is sweetest, that is, contains the highest amount of sugar when it is "ripe." When purchasing fruit for your birds, it is important to know whether the fruit is "green" meaning unripe, "ripe" which is the perfect time to feed, or "over ripe" which is past its prime. An easy example of unripe fruit is a green banana, a ripe banana is yellow and an overripe one is black.

The most cost effective way to purchase fruit is by the case. Case size varies depending on the fruit, but is usually in the 25 to 30 pound range. Most produce managers at your local store will give you special case prices. Providing that you have enough birds to warrant buying cases, you will save time by not having to go to the store as often.

Diseases of caged birds have often been associated with dietary deficiencies. I hope that, by providing you with the nutritional data, you will become aware of what you are feeding your birds. The only dehydrated fruit included in this chart is raisins, since it is often fed to lories and softbills. Because dehydrated food has no water, it will always have greater nutritional value than fresh fruit,

though some of the vitamins are lost in the dehydration process.

Storage

Cases of fruit are best stored in the refrigerator at 32 to 40°F. Apples and oranges will do fine in a cool garage or cellar if they are kept off the cement floor on pallets. Storing unrefrigerated fruit on pallets prolongs its life since direct contact with cement can cause mold on the bottom layer of fruit. Bananas will not ripen in the refrigerator and will need to be left at room temperature for a few days. Once ripe, they can be refrigerated, however, their skins will turn black. Although this does not look appealing, the fruit itself is still firm and tasty. Cases of fruit should be sorted on arrival home to discard any soft or moldy fruit that might contaminate the good fruit.

Since fruit tends to be regional in nature, with aviculturists in Hawaii having easy access to pineapple, papaya, and mango, and those in Florida having citrus readily available, I may have missed a fruit that you commonly feed your birds. If so, you can get a copy of *Agriculture Handbook No. 8-9* from the U.S. Department of Agriculture, U.S. Government Printing Office, Washington, D.C. 20402, from which the following chart was created. My thanks to the graphics department at AFA for their help in the creation of the fruit chart. ●

Nutritional Analysis of Selected Fruits (per 100 gram weight)

NUTRIENTS: (gr)	Apple	Banana	Black-berries	Figs	Grapes	Mango	Canta-loupe	Honey-dew	Water-melon	Oranges	Papaya	Peaches	Pears	Pineapple	Plums	Pome-granate	Raisins
Calories	57	92	52	74	63	65	35	35	32	47	39	43	59	49	55	68	300
Protein	.15	1.03	.72	.75	.63	.51	.88	.46	.62	.94	.61	.70	.39	.39	.79	.95	3.22
Carbohydrates	14.84	23.43	12.76	19.18	17.15	17	8.36	9.18	7.18	11.75	9.81	11.10	15.11	12.39	13.01	17.17	79.13
Total Fat	.31	.48	—	.30	.35	.27	.28	.10	.43	.12	.14	.09	.40	.43	.62	.30	.46
Saturated	.051	.185	—	.060	.114	.066	—	—	—	.015	.043	.010	.022	.032	.049	—	.150
Monounsaturated	.013	.041	—	.066	.014	.101	—	—	—	.023	.038	.034	.084	.048	.406	—	.018
Polyunsaturated	.091	.089	—	.144	.102	.051	—	—	—	.025	.031	.045	.094	.146	.134	—	.135
Cholesterol (mg)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phytosterols (mg)	—	16	—	31	—	—	10	—	2	—	—	10	8	6	7	17	—
Fiber	.54	.50	4.10	1.20	.76	.84	.36	.60	.30	.43	.77	.64	1.40	.54	.60	.20	1.28
Water	84.46	74.26	85.64	79.11	81.30	81.71	89.78	89.66	91.51	86.75	88.83	87.66	83.81	86.50	85.20	80.97	15.42
Ash	.24	.80	.48	.66	.57	.50	.71	.60	.26	.44	.61	.46	.28	.29	.39	.61	1.77
MINERALS: (mg)																	
Calcium	4	6	32	35	14	10	11	6	8	40	24	5	11	7	4	3	49
Iron	.07	.31	.57	.37	.29	.13	.21	.07	.17	.10	.10	.11	.25	.37	.10	.30	2.08
Magnesium	3	29	20	17	5	9	11	7	11	10	10	7	6	14	7	—	33
Phosphorus	7	20	21	14	10	11	17	10	9	14	5	12	11	7	10	8	97
Potassium	113	396	196	232	191	156	309	271	116	181	257	197	125	113	172	259	751
Sodium	0	1	0	1	2	2	9	10	2	0	3	0	0	1	0	3	12
Zinc	.04	.16	.27	.15	.04	.04	.16	—	.07	.07	.07	.14	.12	.08	.10	—	.27
Copper	.031	.104	.140	.070	.040	.110	.042	.041	.032	.045	.016	.068	.113	.110	.043	—	.309
Manganese	.023	.152	1.291	.128	.718	.027	.047	.018	.037	.025	.011	.047	.076	1.649	.049	—	.308
VITAMINS: (mg)																	
Ascorbic Acid	4.0	9.1	21.0	2.0	4.0	27.7	42.2	24.8	9.6	53.2	61.8	6.6	4.0	15.4	9.5	6.1	3.3
Thiamin	.017	.045	.030	.060	.092	.058	.036	.077	.080	.087	.027	.017	.020	.092	.043	.030	.156
Riboflavin	.010	.100	.040	.050	.057	.057	.021	.018	.020	.040	.032	.041	.040	.036	.096	.030	.088
Niacin	.091	.540	.400	.400	.300	.584	.574	.600	.200	.282	.338	.990	.100	.420	.500	.300	.818
Pantothenic Acid	.057	.260	.240	.300	.024	.160	.128	.207	.212	.250	.218	.170	.070	.160	.182	.596	.045
Vitamin B6	.046	.578	.058	.113	.110	.134	.115	.059	.144	.060	.019	.018	.018	.087	.081	.105	.249
Folicin (mcg)	.4	19.1	—	—	3.9	—	17.0	—	2.2	30.3	—	3.4	7.3	10.6	2.2	—	3.3
Vitamin A IU	44	81	165	142	100	3894	3224	40	366	205	2014	535	20	23	323	—	8
AMINO ACIDS: (gr)																	
Tryptophan	.001	.012	—	.006	.003	.008	—	—	.007	.009	.008	.002	—	.005	.016	—	—
Threonine	.005	.034	—	.024	.017	.019	—	—	.027	.015	.011	.027	.010	.012	.016	—	—
Isoleucin	.006	.033	—	.023	.005	.018	—	—	.019	.025	.008	.020	.011	.013	.021	—	—
Leucine	.009	.071	—	.033	.013	.031	—	—	.018	.023	.016	.040	.020	.019	.017	—	—
Lysine	.009	.048	—	.030	.014	.041	—	—	.062	.047	.025	.023	.014	.025	.006	—	—
Methionine	.002	.011	—	.006	.021	.005	—	—	.006	.020	.002	.017	.005	.011	.004	—	—
Cystine	.002	.017	—	.012	.010	—	—	—	.002	.010	—	.006	.004	.002	.017	—	—
Phenylalanine	.004	.038	—	.018	.013	.017	—	—	.015	.031	.009	.022	.010	.012	.006	—	—
Tyrosine	.003	.024	—	.032	.011	.010	—	—	.012	.016	.005	.018	.003	.012	.019	—	—
Valine	.007	.047	—	.028	.017	.026	—	—	.016	.040	.010	.038	.014	.016	.013	—	—
Arganine	.005	.047	—	.017	.046	.019	—	—	.059	.065	.010	.018	.007	.018	.013	—	—
Histidine	.002	.081	—	.011	.023	.012	—	—	.006	.018	.005	.013	.004	.009	.029	—	—
Alanine	.005	.039	—	.045	.026	.051	—	—	.017	.050	.014	.042	.013	.017	.249	—	—
Aspartic Acid	.026	.113	—	.176	.077	.042	—	—	.039	.114	.049	.117	.077	.057	.037	—	—
Glutamic Acid	.016	.111	—	.072	.131	.060	—	—	.063	.094	.033	.106	.028	.045	.012	—	—
Glycine	.006	.037	—	.025	.019	.021	—	—	.010	.094	.018	.024	.011	.017	.034	—	—
Proline	.005	.040	—	.049	.021	.018	—	—	.024	.046	.010	.029	.011	.013	.020	—	—
Serine	.006	.047	—	.037	.030	.022	—	—	.016	.032	.015	.032	.014	.025	—	—	—

(Blank spaces indicate a lack of data)