

### AMERICAN FEDERATION OF AVICULTURE

Dedicated to conservation of bird wildlife through encouragement of captive breeding programs, scientific research, and education of the general public

#### MEMBER NATIONAL & INTERNATIONAL ORGANIZATIONS

African Love Bird Society American Budgerigar Society, Inc. American Cockatiel Society, Inc. American Pigeon Fanciers' Council American Racing Pigeon Union, Inc British Columbia Avicultural Society National Cockatiel Society National Finch Society Southeastern Aviculturists Association National Cage Bird Show, Inc. Avicultural Society of America

#### MEMBER CLUBS

Bird Club of Greater Birmingham Central Alabama Aviculture Society

ARIZONA

Arizona Aviculture Society Arizona Budgerigar Society Avicultural Society of Tucson The Seed Crackers

CALIFORNIA

**American Canary Fanciers** Association

Aviary Association of Kern Avicultural Association of San Francisco

**Budgerigar Research Association Butte County Bird Club** California Game Breeders

Association Capitol City Bird Society

Central California Cage Bird Club Contra Costa Avian Society Exotic Bird Breeders Association Exotic Hookbill Society Finch Society of San Diego County Foothill Bird Fanciers

Fresno Canary and Finch Club Golden Gate Avian Society Golden West Game Breeders and

Bird Club, Inc. Great Western Budgerigan Society, Inc.

Hookbill Hobbyists of Southern California

Inland Game Bird Breeders Long Beach Bird Breeders Norco Valley Bird Breeders North County Aviculturists Northern California Budgerigar

Society, Inc. Nu-Color Bird Association

Orange County Bird Breeders Redwood Budgie Hobbyists San Diego County Bird Breeders Association

San Diego County Canary Club San Gabriel Valley Parrakeet Association

Santa Clara Valley Canary & Exotic Bird Club

South Bay Bird Club South Coast Finch Society Tri City Budgerigar Society Valley of Paradise Bird Club Ventura County Bird Club West Valley Bird Society Western Bird Breeders Society

COLORADO

Rocky Mountain Society of Aviculture, Inc.

CONNECTICUT Connecticut Association for Aviculture, Inc.

Delaware Aviculture Association

Aviary & Cage Bird Society of South Florida Central Florida Bird Breeders Feathered Friends of Florida

FLORIDA

Avian Society Gold Coast Exotic Bird Club, Inc. Greater Brandon Avian Society Greater Jacksonville Avicultural

Society, Inc Greater Miami Avicultural

Society, Inc. Polk County Avicultural Society Suncoast Avian Society Sunshine State Cage Bird

Society, Inc. Tropical Cockatiel Club of Miami

GEORGIA Georgia Cage Bird Society Greater Middle Georgia Cage Bird Society

HAWA II

Exotic Birds of Hawaii

IOWA

Mid-America Cage Bird Society

ILLINOIS

Greater Chicago Cage Bird

McLean County Pet Bird Club

Kansas Avicultural Society, Inc.

LOUISIANA Gulf South Bird Club

MARYLAND Baltimore Bird Fanciers, Inc. Maryland Cage Bird Society, Inc

MASSACHUSETTS Exotic Cage Birds of New England The Boston Society for Aviculture, Inc

Western New England Cage Bird

MICHIGAN

Ann Arbor Cage Bird Club Mid-West Canary Club, Inc Motor City Bird Breeders, Inc.

MINNESOTA

Minnesota Cage Bird Association North Star Parrot Breeders Society

MISSISSIPPI

Mississippi Budgerigar Society

Greater Kansas City Avicultural

Heart of America Parrot Society Missouri Cage Bird Association

NEBRASKA

Greater Omaha Cage Bird Society

Las Vegas Avicultural Society Northern Nevada Cage Bird Society Silver State Budgerigar Society, Inc. Vegas Valley Caged Birds Association

NEW HAMPSHIRE

New Hampshire Avicultural Society

Finger Lakes Cage Bird Association The Greater Rochester Hookbill Association

NORTH CAROLINA Carolina Avicultural Society Charlotte Metrolina Cage Bird Society

Smoky Mountain Cage Bird Society оню

Central Ohio Bird Fanciers, Inc. Cleveland Canary & Cage Bird Club Golden Crescent Cage Bird Club Mid-American Exotic Bird Society, Inc.

OREGON

Cascade Budgerigar Society Columbia Canary Club Emerald Exotic Bird Society Exotic Bird Club of Oregon Northwest Pigeon Fanciers Association

PENNSYLVANIA

Central Pennsylvania Cage Bird Club The Greater Pittsburgh Cage Bird Society

York Area Pet Bird Club

SOUTH CAROLINA Carolina Cage Bird Club

TENNESSEE

Middle Tennessee Cage Bird Club

TEXAS

Alamo Exhibition Bird Club Capital City Cage Bird Club Dallas Cage Bird Society Fort Worth Bird Club North Texas Cockatiel Club

UTAH

Avicultural Society of Utah Utah Pheasant Society

VIRGINIA

Commonwealth Avicultural Society National Capital Bird Club Parrot Breeders Association Peninsula Cage Bird Society Virginia Ornamental Bird Society

WASHINGTON

Avicultural Society of Puget Sound Northwest Aviculture Society Northwest Exotic Bird Society Washington Budgerigar Society, Inc.

WISCONSIN

Wisconsin Cage Bird Club, Inc.

#### COMMERCIAL MEMBERS

Animal Exchange, Rockville, MD Pritchard Bookkeeping Service, El Cajon, CA Southeast Aviaries, Alexandria, VA Luv-Them-Birds, Miami, FL Valentine Equipment Co., Hinsdale, IL Nekton U.S.A., Inc., St. Petersburg, FL Rainbow Bird Ranch, Asheboro, NC Kellogg, Inc., Milwaukee, WI Birds of a Feather, Santa Rosa, CA Sandy Creek Farm, Sarasota, FL Fins, Furs, 'N Feathers, Boca Raton, FL Mason's Exotic Bird Services, San Bruno, CA Auerhahn Ranch, Boerne, TX Serdna Machine, Fullerton, CA Parrot Jungle, Inc., Miami, FL Norshore Pets, Marengo, IL

> For information about contacting any of these member clubs, please call that club's closest state coordinator. There is a state coordinator listing with phone numbers elsewhere in this publication.

# **CALCIUM**

### The Misunderstood Mineral

By Thomas P. Ryan, D.V.M. Binghamton, New York

Calcium and phosphorus are two important minerals in the diet of birds. Calcium- and phosphorus-related problems are not uncommon in pet birds. The deficiency most frequently seen in pet birds fed an all-seed diet is of calcium. Calcium is required in greater quantities than any other mineral and its metabolism is closely intertwined with that of phosphorus and vitamin D.

Calcium is important for the fol-

- 1. The major component of bone and egg shell;
  - 2. Necessary for nerve impulses;
  - 3. Heart rate and blood clotting;
  - 4. Muscle function;
  - 5. Metabolic processes.

Phosphorus is found in bone, egg shell, muscles and is important in the metabolism of fats and carbohydrates. Low calcium can be a result of several things including the following:

1. High phosphorus and magnesium

in the diet;

2. Large amounts of fat (such as seen in high oil seeds);

3. Not enough calcium in the diet;

4. High intestinal alkalinity;

5. Calcium complexing with oxalates or phytates in the diet.

It is important to remember that the calcium-to-phosphorus ratio of seeds most commonly included in bird feed range from 1:6 to 1:37. The correct ratio of calcium to phosphorus is 1.5:1 regardless of the species.

Metabolic bone disease (MBD) is a term used to describe a variety of pathologic bone conditions due to calciumphosphorus-vitamin D, problems resulting from incorrect diet or diseases of the kidney, liver, intestine, thyroids, parathyroids or bone. Rickets is a form of MBD and is a disease of growing birds characterized by failure to deposit adequate calcium. In the strict sense of the word, rickets is due to a vitamin D, deficiency; however, many people use the term to denote low calcium absorption. Due to the low calcium levels the parathyroid glands secrete a hormone, PTH, in ever-increasing amounts to compensate for this imbalance. This results in the condition known as Nutritional Secondary Hyperparathyroidism (NSHP). The signs of NSHP initially may be vague and may include the following: dull feathers, slow feather growth after a moult, feather picking, sleepiness, mental dullness, gastrointestinal upset. In advanced cases there may be muscle cramps and involuntary wing flapping, eggs may be laid deformed or with no shell or there may be a complete failure to lay eggs. Seizures can occur and may be triggered by stress, egg laying, noise, sudden turning on and off of lights or a meal with a high amount of phosphorus.

Treatment: The need for calcium is satisfied by taking in adequate calcium in the diet and by drawing upon the calcium depots (bone) of the bone (via PTH). Vitamin D alone should not be used in the treatment of NSHP. Vitamin D does not increase the intestinal absorption of calcium, but increases the blood calcium levels by taking it from the bone. In fact, prolonged vitamin D therapy will completely demineralize the bird unless the diet is corrected. The proper treatment is to correct any dietary problem and if necessary correct the hypocalcemia (low calcium) by injecting calcium glucomate in fortified 5% dextrose in saline into a vein.

Diagnosis of NSHP is done by a combination of signs that the bird is showing, blood tests and X-rays. The best prevention is a good diet no matter what the species. •

## Palm Cockatoo Registration

The first Regional Studbook for Palm Cockatoo, *Probosciger atterimus*, will be published and issued during the fall of 1985. Studbook cards are being mailed out now. If you have not been previously contacted and you are now holding Palm Cockatoos in your collection, please contact: Ronald A. Young, Studbook Keeper, Palm Cockatoo, Greater Baton Rouge Zoo, P.O. Box 60, Baker, LA 70704, phone 504/775-3877.

Some successful reproduction is now taking place in the private sector. It is important, therefore, that we identify and register as many of the birds now residing in the country in an effort to keep parentage information clean for the future of the species.

It is advisable that you identify your birds in some way. Tattooing under the wing is permanent. There are also good leg rings on the market made of stainless steel that can be custom stamped. Please contact me for more information.

R.A. Young



#### 1985 OFFICERS

JERRY JENNINGS/President

DON CAVENDER/Ist Vice President
HUBERT MORRIS/Chief Financial Officer
LORENE CLUBB/Executive Secretary

#### REGIONAL VICE PRESIDENTS

Linda Rubin/Northeastern (617) 469-0557 • Bill Maynard/Southeastern (305) 968-4214
Bill Wilson/Mideastern (815) 568-5611 • Gary Morgan/Central (303) 422-6399
Rex Kennedy/Western (801) 571-6183 • James H. Coffman/Northern California (415) 692-2234
Aletta M. Long/Southern California (213) 596-7429

#### LEGISLATIVE VICE PRESIDENT

Lee Phillips (301) 798-1353

#### STATE and REGIONAL COORDINATOR CHAIRMAN

Ray H. Rudisill (314) 645-6757

#### REGIONAL COORDINATORS

NORTHEASTERN Tim Dahle (301) 760-4626

im Danie (301) /60-4626

SOUTHEASTERN Steve Silver (904) 775-8657

MID-EASTERN Craig Hendee (312) 724-2578 CENTRAL Garrie Landry (318) 828-5957

WESTERN Jeff L. Wigginton (206) 939-8267

CALIFORNIA Patricia Barbera (707) 996-4266

#### STATE COORDINATORS

MAINE

Archie Fairbrother (207) 394-2252

MARYLAND

Ro Dahle (301) 760-4626

MASSACHUSETTS

Gary Lilienthal (617) 542-7070

MICHIGAN

Glen Pace (313) 785-0757

MINNESOTA

Carol Schmitz (612) 890-6164

MISSISSIPPI

James Duroy (601) 625-7262

MISSOURI

Eileen Karius (314) 351-2580

MONTANA

G. Allan Taylor (406) 587-3338

NEBRASKA

Robert G. Travnicek (402) 821-2490

NEVADA

Paul R. Castella (702) 645-9022

NEW HAMPSHIRE

F. Lawrence Brandt (603) 642-5074

NEW IERSEY

Terry Veraldo (201) 447-3378

NEW MEXICO

NEW YORK

NORTH CAROLINA

ALABAMA Lorene Clubb (205) 857-3817

ALASKA

ARIZONA Mickey Ollson (602) 939-1003

CALIFORNIA (north) Hank Johnson (209) 233-3322

CALIFORNIA (south) Dick Schroeder (213) 645-5842

COLORADO Kevin Wirick (303) 629-9797

CONNECTICUT Walter J. Willoughby (203) 528-7296

DELAWARE Diane Korolog (302) 731-0170

FLORIDA Mrs. M. Simmons (305) 772-2632

GEORGIA Christer Ionsson (404) 344-0816

HAWAII Joyce M. Ferguson (808) 262-7278

ILLINOIS

INDIANA Carol Musselman, DVM (317) 881-3125

IOWA Ted Pulla (515) 225-0302

KANSAS John R. Stocker (316) 788-6552

KENTUCKY Thomas B. Angel, Jr., DVM (606) 371-4929 LOUISIANA NORTH DAKOTA/SOUTH DAKOTA John C. Lawrence Jr., DVM (504) 343-2622 Carol Hamilton (605) 535-2541

> OHIO Michaeleen Rogers (419) 639-3673

OKLAHOMA Roger W. Harlin, DVM (405) 636-1484

> OREGON Kay Mahi (503) 543-6042

PENNSYLVANIA Bill Lumley (717) 234-0732

SOUTH CAROLINA Jerry Sanders (803) 578-6541

TENNESSEE Don Warmbrod (901) 685-5261

TEXAS

UTAH Rex Kennedy (801) 571-6183

VERMONT Heather J. Beck (802) 948-2371 VIRGINIA

Carole Wheeler (703) 323-5048 WASHINGTON

Joe Longo (206) 631-4245 WASHINGTON, D.C.

Ruth Hanessian (301) 424-PETS

WEST VIRGINIA Patty Knoblauch (304) 725-5601

WISCONSIN Greg Schauer (414) 629-9292

WYOMING Jerry Youmans (307) 237-9564

### SCHEDULE FOR AFA BOARD OF DIRECTORS MEETINGS

Mark these dates and plan to attend!

November 16, 1985

Redondo Beach, California — A.F.A. Home Office Fall Quarterly Meeting

February 14-17, 1986

Phoenix, Arizona — Holiday Inn and Holidome Winter Regional Meeting

August 6 thru 10, 1986

New Orleans, Louisiana — Fairmont Hotel 12th Annual Convention