# 13th ANNUAL CONFERENCE



TORONTO, ONTARIO, CANADA

NOVEMBER 19-22, 1980



# PROGRAM

SCIENTIFIC SESSIONS

THEME Total Health Management — The Team Approach

PRECONVENTION SEMINARS

#### Milk Quality — SEMINAR I

Dr. James Jarrett, Chairman Registration — \$350 — limited to 20 registrants

November 16, 8:00 A.M. to 10:00 P.M.

Carleton Room

November 17, 8:00 A.M. to 10:00 P.M. Farm Visits 6:00 P.M. to 10:00 P.M. Wentworth Room

November 18, 8:00 A.M. - 10:00 P.M. Carleton Room

The instructors involved with this seminar will be as follows:

Dr. Paul Blackmer, Chino, California, will discuss quality milk problems with relation to high bacteria counts and off flavors and also evaluating milking equipment in large herd management situations.

Dr. Nelson Philpot of Homer, Louisiana, will be discussing the bacteriology and other management aspects of producing quality milk.

Dr. Larry Heider of Columbus, Ohio, will discuss the evaluation of milking equipment in small dairy barns with particular emphasis on bucket milkers.

Dr. James Jarrett will discuss basic milking machine function and evaluation.

The entire staff will be involved in discussion of each of these areas as they are covered during the seminar.

#### Applied Dairy Nutrition --- SEMINAR II

- Chairmen Dr. Tim Lesch, Dr. Ben Harrington and Dr. Fred Troutt
- Registration \$250 Limited to 20 registrants (At least 15 required)
- November 17, 18, 19, 8:00 A.M. to 10:00 P.M.

Elgin Room

#### WEDNESDAY, NOVEMBER 19

8:00 A.M. - 5:00 P.M. Registration Concourse 8:00 A.M. - 6:00 P.M. Exhibit Set-Up

Sheraton Hall

- 9:00 A.M. 3:00 P.M. A.A.B.P. Executive Board Luncheon Meeting *Windsor Room*
- 12:00 Noon 1:30 P.M. Executive Board Luncheon Carleton Room

3:00 P.M. - 5:00 P.M. A.A.B.P. Committees

Civic Ballroom 8:00 P.M. - 10:00 P.M. Practice Tips and Related Topics Grand Ballroom E (L)

- Chairman Dr. Ted Shacklady
  - 1. Dr. Harries Salmonellosis in Southern Alberta Feedlots
  - 2. Dr. Woelffler Clinical Management of Early Fetal Death
  - 3. Mr. Peter Ernst B.V.D. Vaccination Trial
- 4. Dr. Butler Use of Magnesium Oxide in Rumen Acidosis
- 5. Dr. Abernathy Herd Health in Free Stalls
- 6. Dr. Atkins Herd Health Management in Central Alberta Practice
- 7. Dr. Shacklady Inventory Control and Application in a Mixed Practice and Clinic
- 8. Dr. Swartz Inventory Control
- 9. Dr. Wenkoff Practical Approach to Prostaglandins in Large Animal Reproduction

#### THURSDAY, NOVEMBER 20

8:00 A.M. - 5:00 P.M. Registration Concourse 8:00 A.M. - 4:00 P.M. Exhibits Open

- 8:30 A.M. 12:00 Noon Feedlot, Dairy-Cow/Calf Combined Session Grand Ballroom, C & W Chairman — Dr. Otto Radostits
  - Pathogenesis & Diagnosis of Abortion & Neonatal Disease — Dr. R. B. Miller
  - Film The Calf Killer
  - E. Coli enterotoxin in Calves Dr. C. L. Gyles Clinical Management of Colibacillosis — Dr. D. G. Butler
  - Prevention and Control of Calf Scours Dr. S. Acres
- 12:00 Noon 1:30 P.M. A.A.B.P. Executive Board Luncheon Meeting Wentworth Room
- 12:00 Noon 1:30 P.M. Luncheon for registrants & Exhibitors in Exhibit Area Sheraton Hall

Plenary SessionGrand Ballroom, C & WChairman — Dr. D. G. Davis

- 1:30 P.M. Welcome Introduction, Dr. David Bechtol, President1:40 P.M. The Program Dr. Jack Cote, President-Elect
- Invocation Father Ronald J. Cote
- 1:45 P.M. Welcome to Canada Hon. Eugene Whelan Federal Minister of Agriculture
- 2:00 P.M. Welcome to Ontario Hon. Lorne Henderson Ontario Ministry of Agriculture
- 2:15 P.M. Keynote Address Mr. Peter Hannam, President, Canfarm Data System
- 3:00 P.M. Canadian Dairy Industry Mr. Earl Osborne Holstein Friesian Association
- 3:30 P.M. 4:00 P.M. TTC Street Cars to CNE Coliseum, Royal Agricultural Winter Fair
- 5:00 P.M. 7:00 P.M. Ontario Wine and Cheese Tasting Tanbark Room, Coliseum
- 8:00 P.M. Royal Winter Fair Horse Show 1,000 tickets reserved — Cost \$8.00
- 11:00 P.M. 12:00 P.M. Return to Sheraton Centre — 1.8 miles on your own to TTC street car (beside Coliseum) or by taxi in front of Coliseum

#### FRIDAY, NOVEMBER 21

8:00 A.M. - 5:00 P.M. Registration Concourse 8:00 A.M. - 5:00 P.M. Exhibits Open

#### Sheraton Hall

- 8:30 A.M. 9:30 A.M. A.A.B.P. Business Meeting Grand Ballroom E & W
  - Election of Officers, Reports, etc. Presentation of A.A.B.P. Practitioner of the Year Award (Diamond Laboratories) — Dr. Lee Allenstein

Feedlot, Cow-Calf & Dairy Combined Session — Dr. Terry Church, Chairman

Grand Ballroom E & W

Cinema I

- 9:30 A.M. Recording and Analysis of Data on Productivity and Diseases of Feedlot Cattle — Dr. Alan Meek
- 10:00 A.M. Reproductive Performance & Recording Systems, Dr. Williamson, Melbourne, Australia
- 10:30 A.M. A Dairy Health and Nutrition Record System for the Practitioner, Dr. J. N. Davidson
- 11:00 A.M. Record Keeping & Health Management, Dr. Esselmont, Reading, England
- 12:00 Noon 1:30 P.M. A.A.B.P. Executive Board Luncheon Meeting Wentworth Room Luncheon for registrants & exhibitors in exhibit area Sheraton Hall
- 1:30 P.M. 5:00 P.M. Problems of the Bovine Abdomen Session — Clinical Conference Style *Cinema II* 
  - Dr. O. M. Radostits & Dr. Gavin Hamilton
  - FILM Torsion of the Abomasum,

Dr. H. St. Pierre

#### **Respiratory Session**

Chairman, Dr. R. A. Curtis

- 1:30 P.M. 2:15 P.M. Pathogenesis of Pneumonia in Cattle, Dr. R. G. Thompson
- 2:15 P.M. 3:00 P.M. Principles of Biological Control of Shipping Fever — Dr. Bruce Wilkie
- 3:00 P.M. 3:15 P.M. COFFEE
- 3:15 P.M. 4:00 P.M. Factors Related to Sickness and Death in Feedlot Calves — Dr. Wayne Martin
- 4:00 P.M. 4:30 P.M. Clinical Management of Respiratory Diseases in Cow/Calf Operations, Dr. T. Church
- 4:30 P.M. 5:00 P.M. Clinical Management of Respiratory Diseases in Cow/Calf Operations, Dr. E. Janzen

#### 6:00 P.M. - 12 Midnight Canadian Capers Grand Ballroom

Cost \$20.00 The Carlton Show Band Tortiers, Beer, Cash Bar

#### SATURDAY, NOVEMBER 22

Reproduction SessionGrand Ballroom CChairman, Dr. Nell Anderson

- 8:30 A.M. 10:00 A.M. Uraplasma Infection of the Bovine Reproductive Tract, Dr. Alton McKay, Dr. Paul Doig and H. L. Ruhnke
- 10:00 A.M. 10:15 A.M. Milk Break Courtesy Ontario Milk Marketing Board
- 10:15 A.M. 11:00 A.M. Review of the Use of GnRH and Prostaglandin, Dr. Wm. Bosu
- 11:00 A.M. 11:30 A.M. The Use of a Luteolytic Agent as a Treatment for Metritis, Dr. Pierre Lamothe
- 11:30 A.M. 12:00 Noon Embryo Transfer for the Practitioner, Dr. R. Mapletoft

Animal Production and Nutrition Session Grand Ballroom W Chairman, Dr. Dave McKay

- 8:30 A.M. 9:30 A.M. Performance of three British Beef Breeds versus Exotics and their Crossbreeds — Dr. H. Fredeen
- 9:30 A.M. 10:00 A.M. Management of the Prepartum Dairy Cow -- J. Rodenburg, Dairy Extension Specialist, O.M.A.F.
- 10:00 A.M. 10:15 A.M. Milkbreak Ontario Milk Marketing Board
- 10:15 A.M. 10:45 A.M. Bypassing the Rumen with Lipids and Protein —Dr. G. McLeod
- 10:45 A.M. 11:15 A.M. Effects of Vitamin E and Selenium on Periparturient Disease and Fertility of Dairy Cows — Dr. D. Morrow
- 11:15 A.M. 12:00 Noon The Use of Beta-carotene in Dairy Rations — Dr. M. Smith
- 12:00 Noon AABP Executive Board Luncheon Meeting Wentworth Room
- 1:00 P.M. 5:00 P.M. Seminar III Pathogenesis & Treatment of Disease of the Bovine Digital Region - Dr. Paul R. Greenough

Dominion Ballroom N

Registration Fee \$15.00 — Limit 20

Part I — The intedigital space and corium of the hoof

Part II — Surgical Treatment — Using slides of actual cases, there will be a discussion of the surgical ankylosis of the joint, use of prosthetics and the drainage of retroarticular abscesses

#### SPOUSE PROGRAM

#### Wednesday, November 19

- 6:00 P.M. 11:00 P.M. Spouses Hospitality Suite — Essex Ballroom — available remainder of meeting
- 8:00 P.M. 10:00 P.M. Speaker for the Spouses Mrs. J. Peebles, San Antonio, Texas Entertaining with Liqueurs, Tommie Ryan — House of Seagram Liqueurs Ltd.

#### Thursday, November 20

9:30 A.M. - 2:30 P.M. Tour I - Cost \$18.00

#### TORONTO OLD AND NEW

Depart from the Sheraton Centre by bus. En route, enjoy a mini tour of grand University Avenue with its majestic boulevard and major buildings of architectural interest. Pass historic Osgoode Hall, our modern Court House, Queen's Park, the Provincial Parliament Buildings, the University of Toronto, the Royal Ontario Museum and Planetarium to the Yorkville area.

A browsing tour among the intriguing shops of Yorkville, known for its art galleries, antique dealers, high-fashion boutiques, craft shops and sidewalk cafes.

An informative talk on Tiffany glass will be given en route to lunch amid the Victorian splendour of the antique filled Ed's Warehouse, housing the world's largest collection of Tiffany lamps.

We will visit an outstanding early Canadian setting to relive our past amid period rooms displaying the finest in Canadian furnishings, artifacts and historical paintings.

3:00 P.M. - 12:00 Midnight Royal Winter Fair, Wine and Cheese Tasting and Royal Horse Show. Cost \$8.00.

#### Friday, November 21

9:30 A.M. - 2:30 P.M. TOUR II — Cost \$20.00.

#### McMICHAEL GALLERY

A scenic jaunt to a delightful galley (5 hours) in a nearby rural Ontario setting. The beautiful McMICHAEL COLLECTION of the celebrated Canadian landscapists, the GROUP OF SEVEN, as well as the finest NATIVE INDIAN and ESKIMO art, is housed in the thirty gallery rooms constructed from hand-hewn timbers and stone.

This excursion affords an opportunity for our commentated tour past the Lakeshore, the Canadian National Exhibition, Ontario Place, and the fine residential neighborhoods of the Kingsway and Forest Hill. The Casa Loma, Privincial Parliament, University of Toronto and the Royal Ontario Museum will also be on the route.

Lunch in the early Canadian atmosphere of the Livery Restaurant, enjoying the fine food and charming decor.

Please note: Tours at McMichael Gallery are given by our own professional art lecturers.

6:30 P.M. - 12:00 Midnight — Canadian Capers — Grand Ballroom — The Dueling Pianos, The Carlton Show Band — Tortiers, Beer, Cash Bar — Cost \$20.00.

#### Saturday, November 22

TOUR III — Bus Tours to Guelph 1 P.M. - 8 P.M. limited to 90 people — Cost \$10.00.

United Breeders, Inc. – R 5, Guelph

Reindale Farms — R 7 — Guelph Walkerbrae Farm — R 7, Guelph Ontario Veterinary College — Guelph

8:00 P.M. - 12:00 Midnight — Royal Winter Fair Horse Show, 200 tickets reserved — Cost \$8.00.

#### Saturday, November 22

1:00 P.M. - 8:00 P.M. - TOUR III - Cost \$10.00.

Tour III is a bus trip to the Guelph area with a visit to United Breeders Incorporated, a bull stud farm numbering over 125 beef and dairy bulls. The tour will include a visit to an Ontario dairy farm and will conclude with a tour of the Ontario Veterinary College and a buffet meal. Each bus will be accompanied by a member of the Ontario Association of Bovine Practitioners, who have arranged the tour. Buses will return to the Sheraton Centre by 8 P.M. so that you may enjoy your Saturday night in Toronto.

8:00 P.M. - 12:00 Midnight Royal Winter Fair Horse Show — 200 tickets reserved — Cost \$8.00.

# KEYNOTE SPEAKERS



The Honorable Eugene F. Whelan

Eugene F. Whelan was born in 1924 in Anderdon Township, Ontario, and has been a resident of his constituency of Essex-Windsor all his life. He and his wife, Elizabeth, and their three daughters, Catherine, Susan and Theresa, live near Amhertsburg, close to the farm on which he was raised. Mr. Whelan attended the township public school, Amherstburg High School and Windsor-Walkerville Vocational and Technical Schools where he studied to be a tool and die maker. He took up cash crop farming after his graduation from high school.

At 24, he served as President of the Essex County Branch of the Ontario Federation of Agriculture. He was one of the organizing directors of the Ontario Winter Wheat Producers Marketing Board, and was also director of one of the largest local co-ops, the Harrow Farmer Co-op, before becoming its President. In addition, he was director of the United Cooperatives of Ontario, and an organizer as well as a director of the Co-op Insurance Association. Mr. Whelan is a member of the Lions Club, the Knights of Columbus Council, and a former member of the UAW-CIO Local 89. He was appointed an Honorary Colonel of the 21st Windsor Service Battalion on July 21, 1976.

Eugene Whelan was first elected to the House of Commons as a member of the Liberal party in the riding of Essex-Windsor in 1962 and re-elected in all subsequent federal elections.

As a Member of Parliament, he has been active in many areas of legislation including agriculture. He was one of the first Members of Parliament to have a private member's bill sent to Committee to become law. In addition, he served as Parliamentary Secretary to the Minister of Fisheries and Forestry from 1968 to 1972, and was Chairman of the House Agriculture Committee. He attended the World Parliamentarians' Conference in Belgrade, Yugoslavia, in 1963, and Lima, Peru, in 1968, and attended the United Nations in New York in January 1967.

On November 27, 1972, Eugene Whelan was appoined the federal Minister of Agriculture. He has held this position since, except for the period from May 1979 to February 1980.

As Minister of Agriculture, Mr. Whelan has made use of his expertise in Canadian agriculture by introducing legislation designed to improve the quality and cost of food production in Canada.

A strong supporter of organized marketing for producers, Mr. Whelan proclaimed in 1973 the Canadian Egg Marketing Agency, the National Turkey Marketing Agency in January 1974, and the National Chicken Broiler Agency in December 1978. The three agencies operate under the National Farm Products Marketing Act.

In February of 1975, changes to the Agricultural Stabilization Act were introduced which extended the list of commodities covered by the Act, increased the guaranteed support level from 80 to 90 per cent of the average market price, indexed the support level to reflect changes in production costs, shortened the base period for average prices from 10 to 5 years, and allowed for regional support programs.

Also in 1975, Mr. Whelan amended the Farm Credit Act by raising the ceiling for borrowing from \$100,000 to \$150,000 and again in 1978, he brought about further amendments raising the borrowing ceiling to \$200,000.

In August, 1977, he established the Advance Payments for Crops Act, whereby the federal government guarantees loans to producers requiring advance payments on their perishable crops. Several major feed storage programs were also launched in 1977 aimed at increasing the production and efficiency of the livestock feed industry in Canada.

Over the years, Mr. Whelan has represented the Canadian government on several missions to Europe, to the Philippines, the Far East, and to several Eastern European countries as well as to the United States, Israel, Mexico and South America.

In addition, Mr. Whelan has hosted many important international conferences in Canada including the 1975 meeting of the Inter-American Institute of Agricultural Sciences in Ottawa.

As Minister of Agriculture, Eugene Whelan has labored to build a healthy Canadian food industry which produces high quality products at reasonable cost. He has introduced 13 new food development programs to help farmers produce more efficiently, and yet, Agriculture Canada still operates with one of the smallest budgets in the entire federal government.

Because he has travelled so extensively at home and abroad, Eugene Whelan has helped improve this country's food resources and is known to many everywhere as "The Great Canadian Farmer".

#### Special Message

On behalf of Agriculture Canada and the Canadian people, I look forward to welcoming you, the membership of the American Association of Bovine Practitioners to Toronto, Ontario, on the occasion of your 13th Annual Conference.

I understand that this is the first of your meetings ever to be held outside the United States, and we are pleased that you have chosen to come to Toronto. Your Canadian members, including President Elect Jack Cote, have been working hard to make sure this conference is a great success.

The A.A.B.P. membership represents the largest specialty group within the American and Canadian Veterinary Medical Associations. Through your organization, responsible, forward-thinking veterinarians have a significant voice in safeguarding the health of North American cattle and the North American livestock industry. Your voice is one of professional, practical experience and government policy makers have come to respect and value the input they receive from your association.

I look forward with pleasure to meeting and speaking to many of you on November 20.

Yours sincerely, Eugene F. Whelan Minister of Agriculture

#### Peter Hannam



Earl Osborne

Earl Osborne, born at Kincardine, Ontario, now lives at Rockwood, Ontario, where he operates a Dairy and Cash Crop farm of 700 acres with his three sons. Earl and his wife, Barbara, also have three daughters and six grandchildren.

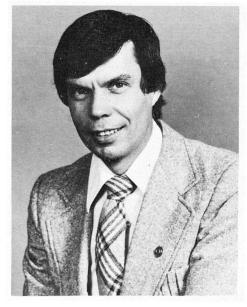
In 1978 Mr. Osborne was awarded a "Master Breeder Shield". This is the highest honour achieved by a Canadian Holstein breeder and indicates his ability to breed purebred Holsteins that are above average for both type and production.

Mr. Osborne has taken an active role in organization including, Elder and Recording Secretary of the Rockwood and Stone United Church, Director and Past Chairman of Dairyland Cooperative Milk Transport, Past Chairman of the Wellington County Milk Committee, Secretary-Treasurer and Past President of Wellington Holstein Club. He is also a Director of Dairy Farmers of Canada, National Director for the Holstein-Friesian Association of Canada, an Official Judge and is the 1980 Chairman of the Holstein National Extension Committee.

#### For Your Library

#### CLINICAL EXAMINATION OF CATTLE

Edited by Prof. Dr. Gustav Rosenberger, former Director of the Clinic for Cattle Diseases, Hanover Veterinary School, West Germany, translated by Roy Mack, F.R.C.V.S., Director, Commonwealth Bureau of Animal Health, Weybridge, England.



Peter Hannam is a cash grains and pedigreed seed farmer and lives on a farm with his wife and children near Guelph, Ontario. He is also President of the Canfarm Co-operative Services, a farmer-owned cooperative which offers a number of financial planning and record-keeping services to farmers across the country. He has an office in the Canfarm head office in Guelph which he attends regularly.

A graduate of the Ontario Agricultural College, he has been involved in farm organization work for over 12 years. He is past President of the Ontario Federation of Agriculture, the Rural Learning Association, the Guelph Branch of the Ontario Institute of Professional Agrologists and the Wellington Federation of Agriculture.

453 pages with 478 illustrations on 17 color plates, 52 tables.

Distributed in the United States by W. B. Saunders, West Washington Square, Philadelphia, PA 19105.

This book Las been described as the best of its kind in print. The work commences with chapters on handling cattle, methods of restraint and sedation. The next section is devoted to case history, identifying characteristics and the general examination of the patient, followed by specific examination of individual body systems, including blood, rumen fluid and urine.

This excellent publication is highly recommended for students and bovine practitioners throughout the world.

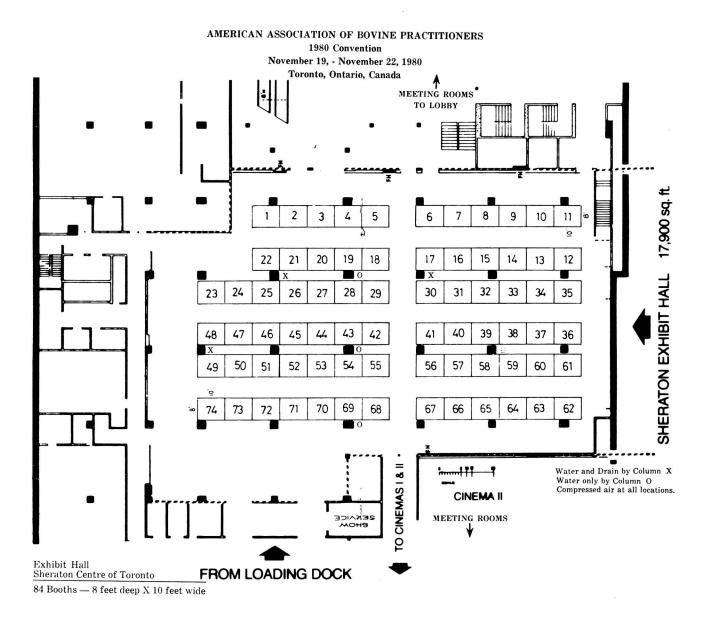


# **1980 AABP Conference Exhibitors**

#### EXHIBITS-Exhibit Hall

Please remember our exhibitors are supporting us at this meeting in a major way. Let's visit their booths and show them we appreciate their support. Visit them anytime they are open but especially during the two luncheons in the area.

Samuel Hutchins, III, D.V.M., South Barre, Vt., Exhibits Manager



#### Abbott Laboratories CAPD, Dept. 44A, R1B, 3rd Fl. 14th & Sheridan Rd., N. Chicago, 1L60064

Abbott representatives will be present to provide information regarding Abbott's new treatment for bovine Cystic ovaries—Cystorelin® (GnRH) and other Abbott Veterinary Products—antibiotics, I.V. Fluids & Fluid Administration equipment.

#### Ag-Tek Division/Kane Enterprises P.O. Box 360

Sioux Falls, SD 57101

Displaying the AG-TEK line of Veterinary Specialty Products.

#### Agri-Vet Pharmaceuticals Lt. 404 Ormont Dr.

Weston, Ontario M9L 1N9

AGRI-VET SPECIALTIES:—BOLUSES:—Calf Scour, Triple Sulfa, Nitro-Urea, After cour, Furosemide 2grams. SOLUBLE POWDERS: —Azra Sulfa <sup>1</sup>/<sub>3</sub> Sulfathiazole Sodium <sup>3</sup>/<sub>3</sub> Sulfamethazine. Neo Oxytet Powder, Oxytetracycline Powder, Detracycline Powder. INJECTIONS: —Calcium Gluconate 23% Calphos Strong, Corionic Gonadotropin, Dexamethasone, Dextros 50%, Epinephrine, Oxytocin, Sodium Iondide, Vitamine AD e Injection, Vitamin B-1 Injection, Vitamin B-12 Injection, Vitamin K<sub>3</sub> Injection.

#### Albion Laboratories. Inc. 101 N. Main Clearfield, UT 84015

Amino acid chelated minerals—liquid and powder—for Bovine. A unique and patented process for preparing essential minerals in order for the nutrients to be bio-available to the animal. Maximum profit computerized feed supports available. Be sure and see the minerals that are available in scientifically designed balances and ratios. Healthy herds as well as high profits are a result of Albion's amino acid chelated mineral nutrients.

#### American Cyanamid Company P.O. Box 400 Princeton, NJ 08540

Cyanamid's Professional Veterinary Pharmaceuticals exhibit will feature RIPERCOL L<sup>®</sup> Injectable Solution, S.E.Z.<sup>®</sup> Controlled Release Sulfonamide, BO-ANA<sup>®</sup> Pour-On insecticide for grubs and lice, AUROVET<sup>®</sup> feed premixes, and DEXON<sup>®</sup> synthetic absorbable sutures. Cyanamid marketing and technical service personnel will be on hand throughout the show.

#### American Hoechst Corp., Animal Health Rt. 202-206 North Somerville, NJ 08876

American Hoescht Corp., Animal Health Div., will have product and educational information available. Stop by and receive the latest information on Lasix, Phosphan, Panacur.

#### Animal Nutrition, Inc. 6608 W. Main Belleville, IL 62223

A completely new and expanded computer service is offered to the Herd Health oriented practitioner. While continuing to provide a ration formulation and nutritional consultation service exclusively to veterinarians, ANI is now expanding their services to include support of in-hourse micro-computer systems. Programs for small business accounting procedures as well as nutritional and herd health programs are available.

#### Animark, Inc. 794 Ventura Aurora, CO 80011

Animark's "Electronics for Animal Science" booth will feature a selection of the most modern electronic instruments available. The *Ovumeter* determines the optimum time for breeding by detecting ovulation. The *BOVEO* permits fast and accurate pregnancy checking using ultrasound. The *Mega-Therm* provides an effective electro-thermal treatment for cancer-eye.

#### Babson Bros. Co. 2100 S. York Rd.

Oak Brook, IL 60521 Milking machinery and dairy farm equipment.

> Beecham Laboratories 501 Fifth St. Bristol, TN 37620

#### ristol, IN 3/620

Beecham Laboratories will feature leading bovine biological and pharmaceutical products including: LEPTOMUNE®-5, the first fiveway leptospiral for cattle and swine; NASAMUNE-IP®, safe intranasal IBR, PI<sub>3</sub> vaccine; ORBENIN-DC® (sterile benzathine cloxacillin) for dry cows; DARICLOX® (sterile sodium cloxacillin) for lactating cows; and RE-SORB®, the totally absorbed nutritional supplement for rapid rehydration of calves.

> Bio-Ceutic Laboratories 2621 N. Belt Highway St. Joseph, MO 64502

For BRD prevention programs, Bio-Ceutic offers SOMNUGEN (Naemophilus somnus bacterin), QUADRAPLEX (inactivated IBR-PI<sub>3</sub> Pasteurella), and other bovine viral vaccine combinations. Our complete GERMICON (clostridials) line; VIROSAN (chlorhexidine); BIO-MYCIN (oxytetracycline) and our MICRO-VET Family (digestive Inoculums, mineral-vitamin supplement) are among the products to be featured. Stop by and learn how their qualities can add to your herd health programs.

#### Brae Laboratories

P.O. Box 266 Terre Haute, IN 47808

BRAE LABORATORIES, U.S.A., will feature RALGRO® brand of zeranol, an implant for beef cattle. Over the past years, RAL-GRO has gained remarkable acceptance all over the world. Technical representatives will be on hand to discuss the product and its use.

#### **Bristol Laboratories**

P.O. Box 657

Syracuse, NY 13201

Bristol Laboratories is proud to display its fine line of ethical mastitis products. Representatives will be available to answer any questions you might have.

#### Burns-Biotec Laboratories, Inc. P.O. Box 3113 Omaha, NE 68103

We will be featuring our specialty line of large animal veterinary products. Our full line of large animal Selenium-Tocopherol products will be displayed as well as Bo-Vibrio<sup>®</sup> (Bovine Vibrosis Bacterin) and B-B Pac<sup>®</sup> and B-B PAC<sup>®</sup>-P (vaccines for the prevention and control of Atrophic Rhinitis and Pasteurella in hogs).

> Church & Dwight Co., Inc. 20 Kingsbridge Rd.

Piscataway, NJ 08854

Manufacturers of "The Normalizer ', Arm & Hammer® feed Grade Sodium Bicarbonate.

#### Connaught Laboratories Ltd. 1755 Steeles Ave. W.

Willowdale, Ont., Canada M2N 5T8

Welcome to the A.A.B.P. meeting in Toronto and welcome to the Connaught Laboratories' Animal Health products exhibit. Our representatives are on hand to discuss with you our line of vaccines for the prevention of disease in cattle. Featured at the show will be "VICO-GEN", the world's first safe and proven effective vaccine against E. coli bacterial calf scours.

#### Dairy Equipment Co. P.O. Box 8050

Madison, WI 53716

Bov-matic milking systems equipment — System 2000 Detachers and Agri Comp. 2020 Computor, recording equipment.

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#### **DeLaval Agricultural Division** Alfa-Laval, Limited 113 Park St. S. Peterborough, Ontario, Canada K9J 3R8

Company personnel will be in attendance from both the United States and Canada to discuss milking, cooling, feeding and sanitation equipment and supplies marketed by the company. Automatic takeoff's and receiver groups will be on display.

#### Diamond Laboratories Inc. P.O. Box 863

Des Moines, IA 50304

Diamond Laboratories, Inc. offers the bovine practitioners a quality line of products including MLV vaccines produced on diploid cells, the safest, purest culture used in vaccine production; fermenter bacterins, anti-bacterial treatments and Synovex, the number one growth promoting implant. Stop by our booth and say hello.

> **Diamond Shamrock Corporation** 1100 Superior Ave. Cleveland, OH 44114

The Animal Health Division of Diamond Shamrock manufactures a complete line of animal health products to help maintain good health, growth and feed efficiency in swine, cattle, and poultry.

#### For-Most, Inc. 127 10th St., Box 322

Hawarden, IA 51023 We will be exhibiting our Model 300 Portable Squeeze Chute with

Model 30 Holding Stanchion. We will also be showing our Model A25 Self Catcher and Model 21R Holding Stanchion, with optional Model 10T Head Table and Nose Bar Assembly.

> Fort Dodge Laboratories 800 5th St. N.W Fort Dodge, IA 50501

You are invited to stop by the Fort Dodge exhibit and discuss new and exciting developments in the field of bovine immunology. Qualified personnel will be on hand to discuss new developments and to show you several new products.

> Germania Dairy Automation, Inc. 606 Cooper Rd. Waunakee, WI 53597

GERMANIA DAIRY AUTOMATION will display a working single 2 Herringbone, completely automated, including automatic take-offs, pulsation, stimulation and backflush. GERMANIA equipment is all-air operated. We are concentrating solely on increasing production, decreasing mastitis and improving overall herd health with the aid of automation for all aspects of the milking process.

#### Harwal Publishing Company 326 West State St. Media, PA 19063

Over 1,7000 biologicals, pharmaceuticals, parasiticides, fluids and electrolytes, diets and nutritional supplments are presented through the direct cooperation of the 42 participating manufacturers in the 80/81 VETERINARY PHARMACEUTICALS & BIOLOGICALS. You are cordially invited to stop by and inspect the VPB.

> Haver-Lockhart Laboratories P.O. Box 390 Shawnee Mission, KS 66201

Haver-Lockhart will display their complete line of biologicals and pharmaceuticals for Bovine Practitioners.

> Hoechst Canada, Inc. 4045 Cote Vertu Montreal, Quebec H4R 1R6

Our display will emphasize our particular interest in Reverin Suspension (Rolytetracycline), Lasix and Heptavac, our seven-in-one Clostridial Vaccine.

> Hoffmann-La Roche, Inc. 340 Kingsland Rd. Nutley, NJ 07110

Roche Albon® (Sulfadimethoxine) - the low dose, fast-acting sulfa - is available in convenient Injection-40% - S.R. Sustained

Release Bolus, Regular Boluses, 12.5% Drinking Water Solution and Soluble Powder forms for treatment of specific costly diseases in cattle. Roche also provides Injacom® injectable vitamin products for correction of vitamins A, D and/or B-complex deficiencies in cattle.

#### ICI Pharmaceuticals 6299 Airport Rd. Mississauga, Ontario L4V 1N3

ICI Pharmaceuticals will feature ESTRUMATE® for diary and beef cattle. Representatives will be available to discuss ESTRUMATE and its role in controlled breeding programs and therapeutics. You are cordially invited to visit and pick up your copy of Controlled Breeding Facts.

#### Ideal Instruments, Inc. 115 Fourth Ave. Needbam, MA 02194

Ideal Instruments will again be featuring the unique Electrojac Electronic Ejaculator. The instrument has been well accepted and is being extensively used in the field. Developed and thoroughly field tested at several major veterinary colleges and with numerous practitioners, the Electrojac is capable of producing erection and sperm rich semen fractions often in less than sixty seconds. It is the most advanced device yet conceived for artificial stimulation and semen collection. The Electrojac minimizes stress, shortens the time required for collection, and assures dependable results from animal to animal. The design employs three electrodes which are rhythmically pre-programmed to stimulate near natural responses.

#### International Multifoods Corp. 1200 Multifoods Building Minneapolis, MN 55402

International Multifoods invites you to visit our booth where Os-born & Trevco products will be displayed. The Osborn "Blue Line" features quality pharmaceuticals such as: Methapyrin boluses fast becoming the choice for treating the calf scour-pneumonia complex; IVS 1830, an intravenous solution to provide dextrose electrolytes and amino acids as a aid in treating primary ketosis and general sup-portive therapy; and Mer-A-Lite M, a sulfonamide powder specific-ally formulated for automatic water proportioners. The trevco line includes antibiotics, anti-inflammatory products, vitamins, and other nutritional products.

#### Jorgensen Laboratories 2198 W. 15th St

Loveland, CO 80537

Featuring the finest imported specialty by Hauptner, Braun sutures in cassettes and suture with swaged-on needles in modern convenient packaging. See the Hercules "zig-zag" fetal extractor the new Utrecht fetatome, the latest in economical endoscopes and our complete line of nylon dose syringes.

Kane Enterprises, Inc.

#### P.O. Box 360 Sioux Falls, SD 57101

Will display complete line of AG-TEK Veterinary Products, including the "POLY-SLEEVE" B glove; the "Pro-Fix Tube" for rectal pro-lapse in swine; the SAFE-T-FLEX Pole Syringe; and the NEEDLE CADDY for storing used hypodermic and surgical needles.

#### The Magrath Company Box 148

McCook, NE 69001

"New" C.P.S. (Cattle Pump System) offers a one person system for administering fluids to bovine. Stock Shock - Livestock prod with flexible shaft, u-shaped tip prevents clogging, one year warranty on electronic module. Esophageal Feeding Probes - all species. Calf Strap - Cattle. Calf Claimer Powder. Bolus Gun - Cattle, Power Hoof Rasp. Vetaspirator.

#### Merck Animal Health Division P.O. Box 2000 Rahway, NJ 07065

Professional Veterinary Products, Merck Animal Health Division, invites all veterinarians to visit our exhibit and discuss our complete line of worming products. Our trained and experienced personnel will be available to discuss other areas of mutual interest, including bovine coccidiosis and antibacterials.

#### Norden Laboratories 601 West Cornbusker Highway Lincoln, NE 68521

Norden's extensive line of bovine products will feature "Calf-Guard" rota-coronavirus calf diarrhea vaccine approved for DM vaccination of cows to confer maternal immunity to calves. Other products will include a full line of injectable bovine respiratory vaccines and Norden's exclusive TSV-II combination "temperature specific" vaccines; "Vibrin", vibriosis bacterin combinations, "Sulkamycin-S' calf scour/pneumonia bolette, "Life Guard' oral nutrientelectrolyte and Spanolet II sustained release sulfa bolus.

> Pfizer, Inc. Canada AG. Div. - 17th Floor 235 E. 4th St. New York, NY 10017

Featuring Liquamye-LA-200, the new long-acting, oxytetracycline injectable which was released for sale in the U.S. last July, 1980. Technical and research personnel will be at the booth to answer any questions.

#### Pitman-Moore, Inc. Washington Crossing, NJ 08560

Pitman-Moore, Inc. will be displaying the complete line of Biologicals, Pharmaceuticals, Diagnostics, Surgicals and Anesthesia Equipment.

> Porta-Vet, Industries P.O. Box 728 Hudson, IA 50643

Porta-Vet Industries, of Hudson, Iowa, will be displaying our popular "Pony" Mobile Veterinary Clinic designed to fit in the small economical pick-ups, such as Toyota or Datsun. The clinic is completely self-contained with its own water system, refrigeration, day and night heat, and plenty of storage space.

Rachelle Laboratories, Inc. 700 Henry Ford Ave. Long Beach, CA 90801

Rachelle will feature products produced from three broad spectrum antibiotics; chloramphenicol, tetracycline hydrochloride and oxytetracycline hydrochloride.

> Rogar — STB 17300 Trans Canada Hwy., Exit 50 Kirkland, Quebec 49R 4V2

Rogar S. T. B. provides the veterinarian with the largest line of medicinals and instruments in Canada. Rogar S. T. B. features a complete line of veterinary products with the emphasis on injectible antibiotics. A large number of intramammary and oral antidiarrheal, antibacterial, and anthelmintic compounds are also available.

> Schering Corporation Galloping Hill Rd. Kenilworth, NJ 07033

Schering invites all members and guests of the convention to visit our exhibit. Professional service representatives will be on hand to answer specific questions about NAQUASONE<sup>®</sup> as well as other outstanding products in the Schering line.

> W. B. Saunders Company Canada Ltd. I Goldtbrone Ave. Toronto, Ontario, Canada M8Z 5T9

Veterinary medicine books.

E. R. Squibb & Sons, Inc. P.O. Box 4000 Princeton, NJ 08540

E. R. SQUIBB & SONS, INC., has long been a leader in the development of new therapeutic agents and equipment for the prevention and treatment of diseases. You are cordially invited to meet our representatives who will be available at our exhibit to discuss our full line of products.

Tutag Pharmaceuticals Division of Reid-Provedent Labs. 640 Tenth St. N.W. Atlanta, GA 30318

Tutag Pharmaceuticals, Division of Reid-Provident Laboratories,

Inc., has now moved to Atlanta, Georgia. We are in the process of expanding our Veterinary Product Line. Please stop by our booth and discuss our changes and new products with one of the Tutag Representatives.

> The Upjohn Company Dept. 9510-190 7000 Portage Rd. Kalamazoo, MI 49001

Welcome to the 1980 AABP Convention and welcome to The Upjohn Company veterinary products exhibits. Our representatives are on hand to discuss with you The Strong Red Line of Upjohn Veterinary Products and how they can be used in your health-care programs. Detailed information on these products is also available for your use. We look forward to seeing you.

Veterinary Concepts, Inc P.O. Box 39 Spring Valley, WI 54767

Veterinary Concepts will feature their full line of useful large animal products including Squeeze Jets , Seal Tite Barrier Teat Dip, Bloat Whistle, Shyr Milk Tubes, Teat Tubes, Pipettes and Sleeves. Diagnosticaly our Blood Chemistry system and prepared culture media is inexpensive but maintains our high standards of quality. If you want to know what new devices or procedures are available to the bovine practitioner, stop by the Veterinary Concepts, Inc. booth.

#### Vetrepharm, Inc. 69 Bessemer Rd., Unit #27 London, Ontario N6E 2V6

Vetrepharm Canada, Inc. and Vetrepharm U.S. Products: Veterinary Biologicals & Pharmaceuticals; Diagnostic Computer Program; Mastitis Detection and Treatment. Distributors for Parke-Davis and Company, and Langford Laboratories Ltd.

#### **BOVINE GIVE-AWAY**

Prizes: Ten (10) \$50.00 each, U.S. Funds.

Eligibility: All veterinarians registered at the AABP Conference.

Rules:

- 1. Business cards will be the drawing ticket. Cards will be placed in a liter milk bottle which will be provided each exhibitor by the AABP.
  - 2. Drawing will be held on Friday afternoon, November 21 to determine from which 10 bottles the business cards will be drawn.
- 3. Following the above drawing, one business card will be drawn from each bottle for a \$50.00 prize. Limited to one prize per veterinarian. Winners need not be present to collect.
- 4. Business cards and milk bottles will become the property of the exhibitors, in whose booth the bottle was placed, after the drawing.

Editor's Note: Bring at least 50 cards!

# **AABP 1980 Program Committee**

General Chairman Dr. Jack Cote Scientific Program Dr. Otto M. Radostits Dr. Donald G. Davis Dr. Robert A. Curtis Dr. Terry Church Dr. Eugene Janzen **Practice Tips** Dr. Ted Shacklady Local Arrangements Dr. Neil Anderson Dr. Gerry Honeywood Dr. Don Wilson Seminar Chairmen Seminar I . . . . . . . Dr. James Jarrett Seminar II . . . . . Dr. Ben Harrington Seminar III . . . . . Dr. Paul Greenough Seminar IV . . . . . . . Dr. Don Barnum Spouse Program Mrs. Susan Anderson Mrs. Pat Honeywood **AABP** Program Adviser Dr. Leon Weaver **Exhibits Manager** Dr. Samuel Hutchins III Secretary Mrs. Doris Rayner, Deputy Registrar, O.V.A. **Ontario Association of Bovine Practitioners** Hosting & Tours Dr. Gerald Stirk, Past President Dr. Gerry Honeywood, President Dr. Tim Ogilvie, Treasurer Dr. Kerry Blagrave, Secretary Dr. John Hummel, Vice-President Dr. Roger Holtby, Director

#### An Invitation From The Program Committee

The 1980 Program Committee invite all members and spouses to come to Toronto for a memorable AABP Conference. The format has been changed slightly this year to conform with recommendations by the Continuing Education Committee. We have incorporated the paid seminars into the program and have planned half-day sessions around single topics in a seminar fashion. Also, please attend the AABP committee meetings November 19 and join the discussion.

The theme is Total Health Management — The Team Approach, emphasizing the fact that the veterinarian is the key person to co-ordinate the health management skills of the owner and other professionals, many of whom are appearing on the program. With the help and co-operation of all specialists in the livestock field a maximum level of health management can be achieved.

We scheduled the conference to coincide with the Royal Agricultural Winter Fair, so that members and spouses may enjoy the largest indoor agricultural exhibition in the world. You will never forget the livestock show, flower and produce exhibits and the Royal Horse Show. Also the Canadian Football League Championship is being played in Toronto, Sunday, November 23.

Canadian Capers Fun Night, Spouse Tours and the Tour to Guelph have been planned for your enjoyment. Please pre-register early and plan to stay at least from Wednesday, November 18th until Sunday, November 23rd. The Sheraton Centre is one of the finest convention facilities you will ever experience and you will want to return again soon.

#### The Program Committee



Dr. D. G. Davis



Dr. Shacklady



Dr. & Mrs. Anderson



Dr. & Mrs. Honeywood



Dr. Otto Radostits

# **AABP** Officers



# President

## David T. Bechtol, D.V.M.

Canyon, Texas

Dr. David T. Bechtol, Canyon, Texas, received the D.V.M. degree from Texas A&M University in 1965. He was elected District 8 representative on the AABP Board of Directors in 1975. Born in Amarillo, Texas, Dr. Bechtol was engaged in equine practice for a year and from 1966-1974 he was engaged in general practice and later in swine consultation. At present he is a feedlot and swine consultant. Dr. Bechtol is a past president of the American Association of Swine Practitioners and of the Academy of Veterinary Consultants. He is a member of the AVMA, Texas Cattle Feeders Association and the American Society of Agricultural Consultants. He is Past-President, Texas VMA. Dr. Bechtol was the program chairman for last year's convention in San Antonio.

Dr. and Mrs. Bechtol have three children: Gayla, Carla and Paula.

## A Message From the President

On behalf of the officers of your Association, I extend to you and your family an invitation to attend the 13th Annual AABP Conference.

The bovine practitioner is a busy, involved professional, serving life itself — both animal kind and mankind. Veterinary medicine is more than playing doctor and more than rendering aid or preventative medicine. It is a serious business as well as a profession.

There are many challenges — so much to attain, both in a day to day practice and the long overview of the profession. It has been said "there are many objects of great value to man which can not be attained by uncommitted individuals, but must be attained if at all by association".

The voice of veterinary medicine never needed to be stronger. The posture of the profession was never more important. The public, legislative bodies and regulatory agencies of all kinds look to see who you are as a group when forming opinions, laws, or regulations for you.

The AABP forms a major thrust for keeping the voice of veterinary medicine alive and active for you.

We have not only increased in membership but have also greatly increased the activities, the programs, the services and the involvement of the AABP, and our value to the veterinary medical profession and the public we serve.

The theme of this year's program, "Total Health Management — The Team Approach", emphasizes the importance of an organized approach.

I hope to see ya'll.

Sincerely, David T. Bechtol, D.V.M. President

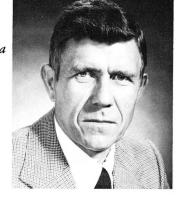
#### SALUTATIONS!

De la part de mes confrères de l'Association américaine des Practiciens Bovins, j'ai l'honneur de presenter une chaleureuse invitation à nos confrères canadiens de participer à notre Convention anneulle, qui aura lieu le 20-23 novembre 1980 au Sheraton Centre Hotel à Totonto.

> David T. Bechtol DVM. President

# **President-Elect**

Jack F. Cote, D.V.M. Rockwood, Ontario, Canada



Dr. Jack Cote was born in Guelph, Ontario in 1929, the son of Dr. Frank Cote, a practicing veterinarian and faculty member in the small animal department at the Ontario Veterinary College.

Following graduation from O.V.C. in 1951 Dr. Cote joined a large animal practice in Stouffville, Ontario. In 1953 he helped establish the ambulatory clinic at the Ontario Veterinary College and has been a clinician on ambulatory since then with the exception of one year in dairy practice in 1963 with Dr. Bill Gray in Newton, New Jersey. He is presently a professor in the Department of Clinical Studies at the University of Guelph. His main interests are dairy herd health and metabolic diseases and equine medicine and reproduction. Dr. Cote was A.A.B.P. director for District 12 from 1975 to 1977.

Dr. Cote and his wife, Dolores have two sons and two daughters. They live on a 160 acre farm at Rockwood, Ontario where they raise and train Standardbreds.

Dr. Cote has served for several years as trustee on Wellington county School boards and as Chairman of the Board of Bishop Macdonell High School, Guelph.

Dr. Cote is Program Co-chairman for the Toronto meeting.

## Vice President

Robert H. Keith, D.V.M. Monroe, Wisconsin



Dr. Robert H. Keith graduated from Portage High School in 1948 and attended the University of Wisconsin Madison and Colorado A&M College. He served in the U.S. Air Force for five years, 1951-55, and received the D.V.M. degree from Iowa State University in 1959. He entered general practice in Monroe, Wisconsin, where he is President of Monroe Veterinary Service, S.C., a seven-veterinarian practice composed of 75% dairy, 15% general large animale and 10% small animals. He is also Monroe City Veterinarian.

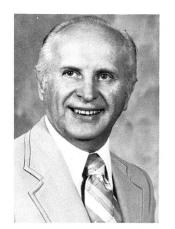
Dr. Keith served as Director, AABP District 5 from 1973-79, and Chairman of the AABP Nutrition Committee for several years. He is a member of the AVMA, Wisconsin VMA (and Bovine Committee Chairman) and a Past-President of Wisconsin Veterinary Academy and Rock Valley VMA.

Dr. Keith is a member, United Methodist Church, Director, First National Bank and Past Cubmaster and Troop Chairman, Boy Scouts. He is also Past-President of Alpine Curling Club and Monroe Country Club.

Dr. Keith and his wife, Careen, have 4 children: Aileen, David, Linda and Brian.

#### Executive Secretary-Treasurer

Harold E. Amstutz, D.V.M. W. Lafayette, Indiana President, World Association for Buiatrics and Alternate Delegate to the AVMA





### AVMA Delegate and AABP Advertising Manager

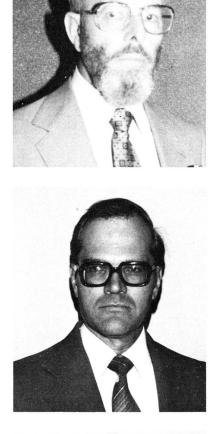
Leland C. Allenstein, D.V.M. Whitewater, Wisconsin

# **NEW DIRECTORS**

DR. ROBERT M. LOVE (Aub., 1960), Monticello, Florida, is the new Director for District 3. Dr. Love was born in Trenton, Florida, and attended public schools in Trenton and Gainsville, Florida. He received the B.S. degree from the University of Florida in 1953. From 1954-55 he served in the U.S. Air Force in Korea. Following a year of graduate studies in nutrition and reproduction at the University of Florida in 1955-56 he entered the School of Veterinary Medicine, Auburn University in 1956 and received the D.V.M. degree in 1960. Dr. Love has been engaged in a mixed practice, mostly bovine ever since in Monticello. The practice is now 85% dairy. Dr. Love is a member of Church of Christ (class teacher 20 years), Kiwanis Club, AVMA, AABP, Theriogenology, and Georgia, Big Bend and Florida VMAs. He was named Cattleman's Association Man of the Year, 1969. Dr. Love and his wife, Sue, have two sons: Joel, 19 and Scott, 18, in Junior College.

DR. DARRELL E. JOHNSON (Minn., 1957), Weyauwega, Wisconsin, is the new Director for District 5. Upon graduation, he entered general practice in Northeastern Wisconsin and is presently the senior member of a four-veterinarian practice incorporated as Dairyland Animal Health, Inc. He serves as President. The practice is primarily dairy. Dr. Johnson is Chairman of the Wisconsin VMA Advisory Committee to the State Animal Health Laboratories, member of the Animal Health Advisory Council to the State Department of Agriculture, member, Board of Director National Mastitis Council, AVMA Delegate the National Mastitis Council. He is also a member of the AVMA, Wisconsin VMA, Northeastern Wisconsin VMA, AABP, AASP Society of Theriogenology, Wisconsin Academy of Veterinary Practice and the Minnesota Veterinary Medical Council Alumni Group. He was named Wisconsin Veterinarian of the Year in 1968, Distinguished Alumnus, Minnesota Veterinary Alumni Association in 1979 and received a Wisconsin Legislative Citation in 1969. Dr. Johnson is an Elder, First Presbyterian Church and a member of the School Board (9 years). Dr. Johnson and his wife, Arlene, have fourchildren : Tim, 23; Debra, 21; Todd, 19 and Danise, 17.

DR. ROBERT L. DARLINGTON (Wash., 1961), Snohomish, Washington, is the new Director of District 11. Born in Everett, Washington, Dr. Darlington received the D.V.M. degree from Washington State University in 1961. Following graduation he was employed in Walla Walla for two years before buying a one-man practice in Snohomish which has now grown into a nine-veterinarian mixed practice. Dr. Darlington has devoted the last five years exclusively to dairy herd health and management consultation. He is a member of the AVMA, AABP, Snohomish County VMA, the Seattle Large Animal Chapter of VMA and the Washington VMA. Dr. Darlington and his wife, Ann, have two daughters, Chris and Carla, and sons, Robert, Greg, John, Mitch and Kelly.







**Re-Elected Directors** 

Paul Winsor, D.V.M. Coalgate, Oklahoma District 7 Joseph W. Bitter, D.V.M. Edna, Texas District 8





Dr. David A. Morrow

#### DR. MORROW RECEIVES BORDEN AWARD

Dr. David A. Morrow, Michigan State University's College of Veterinary Medicine was presented the 37th Borden Award during the 117th annual meeting of the American Veterinary Medical Association in Washington, D.C., July 21-24.

The award is presented annually by the Borden Foundation to a veterinarian selected by the AVMA in recognition of outstanding research contributions to dairy cattle disease control.

Dr. Morrow graduated from Cornell University in 1960 and joined the MSU faculty in 1968, where he is currently involved in research, clinical teaching, and extension programs. His principal research interests are in the improvement of infertility, nutrition, and metabolic diseases. He is a member of AABP and a charter diplomate of the American College of Theriogenologists. Dr. Morrow is the editor of the recently published textbook *Current Therapy in Theriogenology*.

#### For Your Library

#### RAISING THE HOME DUCK FLOCK A Complete Guide by Dave Holderread Illustrated by Millie Holderread

Garden Way Publishing, Charlotte, Vermont 05445. \$5.95 per copy (\$6.95 postpaid).

Looking for a hobby? Maybe raising ducks? This delightful, well illustrated .book tells you all you need to know about this interesting bird.



Dr. Jack L. Bostwick

#### AVMA EXECUTIVE BOARD CHAIRMAN

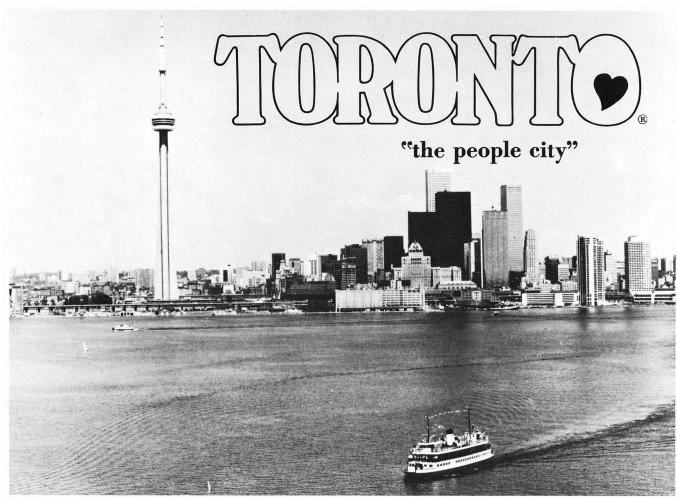
Dr. Jack L. Bostwick, Manhattan, Kansas, was elected chairman of the AVMA Executive Board during the 117th Annual AVMA meeting in Washington, D.C., on July 21. The 16-member Executive Board administers policies and program for the 31,733-member national association.

Dr. Bostwick, who has been a board member since 1976 represents Kansas, Missouri and Oklahoma. A native of Ardmore, Oklahoma, he received the D.V.M. degree from Oklahoma State University in 1951. He was engaged in general practice in Fairview, Oklahoma, for 25 years. He joined the Departof Surgery & Medicine, Kansas State University, in 1976 and received the M.S. degree from the University in 1979. Dr. Bostwick is a past President, Oklahoma VMA and he is an active member of the AABP.

#### KEEPING LIVESTOCK HEALTHY A Veterinary Guide by N. Bruce Haynes, D.V.M.

Garden Way Publishing, Charlotte, Vermont 05445. \$9.95 per copy.

This book is based on the author's conviction, after twenty-five years experience in private practice and as Extension Veterinarian at Cornell University, that the great majority of farm animal disease problems are preventable. The author attempts to explain the nature of the disease process and outlines methods of preventing illnesses of the major farm animal species.



People from everywhere in a city with everything, all living together with the greatest of ease. There are towers of gold that thrust ever skyward. There are Victorian villas under a mantle of green. There are great stores and markets, museums and galleries, first rate live theatre and exquisite cuisine. TORONTO. There's a whole world to see.

The history of Toronto dates back almost three hundred years when the present site, long before the arrival of the white race, was the southern end of the most important of the Indian trails connecting Lake Huron and Lake Ontario. During the 16th and 17th centuries, this site was called "The Toronto Carrying Place". The trail ran from the mouth of the Humber River to the Holland River, thence by water to Lake Huron. To that intrepid explorer, LaSalle, must go the credit in large measure for making famous The Carrying Place. While his exploits are almost forgotten in the Province of Ontario which knew him so well in those early days, his name is held in reverence elsewhere across Canada, even to the Rocky Mountains. At that time, what is now the Province of Ontrio was covered with dense hardwood forests penetrated only in a few directions by means of Indian Trails. The name "Toronto" is of Huron Indian origin, signifying either "a place of meeting" or plenty". At first, the name "Toronto" applied to the area surrounding the northern end of the trail at

Lake Simcoe, but in later years, the name became associated with the southern end of the trail on Lake Ontario. In those early days there was great rivalry between the French and English fur traders for control of the lucrative business in furs. The French had a fortified trading post at Niagara, and the English built one at Oswego further to the east on the south side of Lake Ontario, in an effort to divert the trade in furs from the French. To counteract this loss in trade, the French established a fortified trading post in 1750 at a site which is now at the foot of Dufferin Street. This post was built by the order of the Governor of New France, Le Marquis de la Jonquiere, and was named Fort Rouille after the Colonial Minister of that time, but was generally called Fort Toronto. There had been temporary trading posts in the vicinity of the Humber River from as early as 1678.

During the Seven Years' War on this continent between the British and French nations, for colonial empire, Fort Rouille was burned in 1759 in order to prevent English occupation, the French garrison withdrawing to Montreal. Fort Niagara at that time, was being besieged by British Forces and soon fell.

By the Treaty of Paris in 1763, France surrendered to Great Britain all claims to territory east of the Mississippi. Great Britain, by this time, had eliminated all foreign claimants to the region east of the Mississippi and from Hudson Bay to the Gulf of Mexico.

#### The Toronto Purchase 1788

As part of a plan for the re-opening of the route between Lake Ontario and Lake Huron, and for the control of the rich fur trade, Sir Guy Carleton, 1st Baron Dorchester, during his second appointment as Governor-in-Chief of Canada, 1786-1796, arranged in 1788 for a conference to be held between representatives of the Government and the Chiefs of the Mississauga Indians, to negotiate for the purchase of the lands on which the city is now situated. Part of the price paid to the Indians was 149 barrels of goods, blankets, bolts of cloth, axes and a wealth of articles dear to the hearts of the Indians.

#### The Founding of Toronto

Governor John Graves Simcoe favoured laying out the new capital of the Province of Upper Canada on the site of the present City of London, it being his opinion that the frontier of an enemy state was an unsuitable place for a capital. As a temporary arrangement, however, he decided to establish the seat of Government on the north shore of Lake Ontario where now stands the City of Toronto. This, because of its strategic location and easily defended natural harbour, he had selected as a site for an arsenal. Governor Simcoe had had his first glimpse of Toronto on May 2, 1793, when accompanied by his officers, he was rowed from Newark around the head of Lake Ontario in batteaux.

On July 20, 1793, Governor Simcoe sent a hundred men of the Queen's Rangers, a new corps with the old name, who crossed the Lake from Newark. This corps landed somewhere near the foot of Bathurst Street, and commenced the work of laying out the site for the new town. Governor Simcoe officially arrived in Toronto Bay on July 30, 1793.

The discovery of insulin, one of the most accurately planned scientific developments that the world has ever known, was made at the physiology laboratories of the University of Toronto in the year 1921, by the late Sir Frederick Banting, Dr. Charles H. Best and Dr. J. B. Collip, working under Professor J. J. R. McLeod. The Nobel Prize for the discovery of insulin was awarded to Doctors Banting and Best, who in turn, divided the gratuities attached thereto with Doctors Collip and McLeod. The prolongation of life made possible by the discovery of insulin has made Toronto a name revered by all those who have suffered with Diabetes and the mecca for scientists interested in the study of such an important disease.

The Invention of Standard Time by Sandford Fleming, in 1879, was one of the notable achievements of a citizen of Toronto in the earlier days. After Mr. Fleming had read a paper on his invention before the Candian Institute in February, 1879, the Marquis of Lorne, then Governor-General of Can-



Casa homa — Toronto's 98 room castle.

ada, sent out copies of the addresses to all Governments. The Czar of Russia called an International Time Convention which met in Rome in 1882. This meeting was adjourned and met at Washington, D.C., in 1883. At the Washington Conference, Standard Time was adopted by most countries of the world, the system going into effect on November 18, 1883. Toronto's clocks were advanced 17 minutes to bring them into line with the 75th meridian. Mr. Fleming had, in 1851, the distinction of designing in Toronto the first postage stamp used in Canada.

Mr. Sanford Fleming was knighted by the late Queen Victoria, in recognition of the importance of his invention.

# Toronto Attractions . .

Toronto . . . a city set against the sparkling waters of Lake Ontario, full of attractions and waiting to be explored.

What better way to get one's bearings than from the comfort of an air conditioned sightseeing bus, or viewing the skyline from the harbour and islands, or watching the panorama of the city unfold in a spectacular 8-screen, multi-sensory production.

And that's only the beginning . . .

#### **Ontario Place**

A 96-acre playground set on three manmade islands just a bridge-away from the mainland. The complex is dominated by the eye-catching Cinesphere, housing the world's tallest movie screen. Ontario Place also boasts marinas, a huge open-air theatre, restaurants, boutiques and the spectacular Children's World, an area dedicated to children . . . and play. 955 Lakeshore Blvd. W. (965-7164). Open mid-May to Labour Day. Phone for winter hours.

#### Art Gallery of Ontario

Full spectrum of art from Old Masters to contemporary, plus large Canadian wing. The gallery is also home to the largest public collection of work by famed English sculptor, Henry Moore. 317 Dundas St. W. (361-0414). Closed Mondays.

#### **CN** Tower

Tallest free-standing structure (1815' 5"). Indoor and outdoor observation decks, revolving restaurant at summit and family fun arcade at base. The glass fronted elevators afford one a heart-stopping ride upward. 301 Front St. W. (360-8500).

#### Casa Loma

Astonishingly, this modern city has its own mediaeval castle, the work of Sir Henry Pellatt soldier, financier and eccentric. He wanted a castle of his own . . . so he built one, complete with secret passages, 98 rooms, turrets, even gold plated faucets in the bathroom. 1 Austin Terrace (923-1171).

#### City Hall

Described as everything from "clam shaped" to "flying saucer" to "simply fantastic", the design was an international prizewinner. Note the bronze piece in the city square — artist Henry Moore was so pleased with Toronto's response to this example of his work that he donated his large collection to the Art Gallery of Ontario.

Address could well read "heart of the city" ... Bay & Queen streets (367-7999).

#### Fort York

Restoration of the Fort destroyed during war of 1812 . . . Colonel Zebulon Pike lost his life here. Also, destruction of Fort York was the reason why the White House got its name. You'll learn all about it when you step back into this re-creation of 18th century garrison life. Garrison Roadd off Fleet St. at Bathurst (366-6127).



#### Royal Ontario Museum

A "working" museum, prominent in the field of Egyptology and renowned for its great Chinese collection. Has a super Dinosaur Gallery, extensive textile and costume displays, a hall of armour and an innovative, exciting Discovery Room. 100 Queen's Park (978-3690).

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#### **Ontario Parliament Buildings**

Home of the Provincial Government, this imposing rose coloured stone structure was built on the site of a former lunatic asylum . . . no comment! Free tours weekdays — every half hour. Should you happen to visit while the legislature is in session, then drop in on the daily fang and claw session (question period) 2-3 p.m. Queen's Park (965-4028).

#### **Ontario Science Centre**

Everything is impressive about this \$25 million complex — The setting: a beautiful ravine. The architecture: futuristic, clean and startling, by Raymond Moriyama. And the interior: in a word fascinating.

All things pertaining to the world of scientific knowledge are presented in a stimulating manner which invites involvement, quite in keeping with the Centre's slogan: "Please Touch". Working models, computers, lectures, demonstrations, filmshows . . . it's a difficult place to leave. 770 Don Mills Rd. (429-4100).

#### Metro Toronto Zoo

An exciting new concept in zoo planning, beyond the downtown area, but accessible by public transit and well worth the journey. Set in 700 acres of landscaped parkland, the whole area has been divided into five geographic zones. No cramped cages or concrete walkways, instead animals roaming free well, almost free! — in their natural habitat.

For the faint of heart — 700 acres! — there's the Canadian Domain Ride. This silent, smooth running train travels round the beautiful Rouge River Valley section of the park, often at treetop level.

During the winter months, the Metro Zoo is one of Toronto's most popular sites for cross-country skiing. Meadowvale Road (284-0123).

#### Black Creek Pioneer Village

A living museum depicting 1850's life in rural Ontario. There are more than 30 carefully restored buildings, manned by authentically garbed attendants tending their chores — candle dipping, saddlemaking, weaving, etc. During winter months the grounds are open weekends for fun in the snow . . . weather permitting. Beyond the downtown area at Jane St. & Steeles Ave. (661-6600).

#### Racing

They're at the post!

The thoroughbreds are off and running at Woodbine Racetrack, the largest racing property on the



continent. This beautifully landscaped track is also home to the Queen's Plate, North America's oldest stakes race (1859). Rexdale Blvd. & Highway 427 (675-6110).

While closer to downtown, there's thoroughbred and harness racing at Greenwood Racetrack. 1669 Queen St. E. (698-3131).

#### African Lion Safari

Go Wild!... with more than 1000 exotic animals and birds who roam free in this 500 acre park. Drive through in the comfort of your own car or relax in the air-conditioned Safari Bus. And for an even closer look ... there's a chance to feed the small animals at Pet's Corner. Just an easy hour's drive from downtown Toronto — Highway 8 (west) between Hamilton and Cambridge in Rockton, Ontario (519—623-2620).

For further information contact:

William Holtzman Manager Public Relations (416) 979-3133

# Origins of Canadian Agriculture

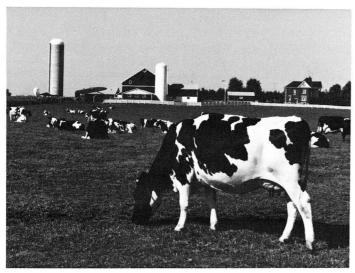
The known history of agriculture in Canada dates from the beginning of the 17th century, though Indians were farming the land long before this. In the span of 350 years, farms have spread from a small plot on a settlement in Acadia to about 70 million hectares across 10 provinces; and where production was once limited to a few bare necessities, farm cash income now exceeds \$5 billion a year, not counting the even greater earnings of the industries that depend on agriculture.

#### Early Days

When Europeans came to North America, Indians were already living partly from corn culture. They also cultivated beans, pumpkins and maize that saved many early European settlers from starvation.

The first permanent French settlement in Canada was established in 1605 at Port Royal (now Annapolis Royal, Nova Scotia) by the great explorer, Samuel de Champlain. The first settler to make his living from farming in the new country was Louis Hebert, who in 1617 cleared land in the area of Quebec City and grew grain, pumpkins and beans, and raised livestock that came originally from France.

During the 17th century the French settlers extended farming along the St. Lawrence River from Montreal to Three Rivers, to Fort Frontenac (later Kingston, Ontario) and along the St. John River in part of the area that became New Brunswick. It is recorded that at Port Royal they grew wheat, oats and flax, and raised cattle, horses, sheep, goats and poultry.



In the 18th century the Acadians moved into Prince Edward Island and also diked some tidal marshlands around the Bay of Fundy, where their crops included fruit. An English-speaking settlement was established at Halifax. Germans and Swiss settled around Lunenburg. New Englanders grew grain, hay and potatoes in the Annapolis Valley, and Massachusetts colonists farmed in the Fredericton area. United Empire Loyalists settled in the Eastern Townships of Quebec and at Niagara, York and the Bay of Quinte in Upper Canada.

In 1786, the first land was cleared at Nootka Sound on Vancouver Island by John McKay. This was sown to crops in the following year when it was occupied by Spaniards, who also raised cattle, swine, goats and poultry. Other farms were established on Vancouver Island by the Hudson's Bay Company.

Agriculture started on the western prairies in 1812 with the arrival of the Selkirk Settlers at the Red River near Winnipeg. It was not long before other settlers were harvesting wheat, barley, oats and vegetables at trading posts of the Hudson's Bay Company in the territories that became Saskatchewan, Alberta and British Columbia.

Meanwhile, agriculture was becoming organized in the East. There were land boards in Upper Canada (later Ontario), agricultural societies and boards of agriculture in Quebec, and an agricultural society in Nova Scotia. Before Confederation in 1867, the new Province of Canada had a department of agriculture and the first agricultural school had been opened at Ste. Anne de la Pocatiere.

#### Confederation and After

One of the first results of Confederation was the establishment of the Canada Department of Agriculture, which was also responsible for immigration, public health, arts and manufactures, statistics, patents, copyright, industrial design and trademarks. Its most urgent task was to prevent the entry of contagious diseases with imported cattle by establishing quarantine stations at ports of entry.

The Homestead Act of 1870 offered free land to settlers in Western Canada. But it was not until 1886, when the Canadian Pacific Railway opened its line from Montreal to Vancouver, that the real flow of homesteaders into the prairie region began. Most Western farmers grew wheat, but there were also cattle, horse and sheep ranches.

By the end of the 19th century, Canada was beginning to make good its promise of becoming one of the world's great food producers. Farms occupied more than 25 million hectares. Grain exports had reached 272,000 tonnes a year. Butter and cheese had been shipped to Britain under refrigeration, and the Department of Agriculture was organizing cold storage facilities. There were federal experimental farms in five provinces. Federal inspection of perishable products for export had also been established. These were sure signs that the country was moving from a hand-to-mouth agriculture into one that could compete in world markets.

In the first decade of the 20th century, while the population of Canada increased by more than one third, the acreage of farms went from 25 million to 45 million hectares, the value of field crops from \$195 million to \$385 million, the number of livestock from 269 million to 615 million, and exports of wheat from 272,000 to 1,252,000 tonnes. From this spectacular opening to the century, Canadian farming gained an impetus that has kept it among the most progressive in the world. In taking its giant steps from an era of trial and error and back-breaking toil to one of mechanization and businesslike enterprise, it has been spurred by the demands of two world wars, the bitter lessons of depression and drought, and world hunger. With the increasing resources of science, technology and management that are being applied to it, the story of farming in Canada may have only just begun.

Acknowledgement: Information Services, Agricultural Canada. Ottowa

#### **ONTARIO AGRICULTURE**

The tremendous contribution of Ontario Agriculture to Canada's economy must be recognized. It is the heartland of Canadian industry for it has the auto and steel industries, huge petro chemical refineries and Canada's most varied agriculture. Ontario grows more food than any other province. It produces half of Canada's fruit, two-thirds of its vegetables and a third of all livestock. Ontario's farmers earn just over 28% of Canada's total farm cash sales. Its agricultural industry is worth about \$4 billion annually. Twenty percent of the population depend on food production for their livelihood.

#### **Regulation of Veterinary Practice in Canada**

Constitutionally, the responsibility for regulation of veterinary practice falls to the Provinces. The result of this distribution of responsibility is that a Veterinary Practice Act has been passed by each of the provincial legislatures, and in many instances, these have been sponsored by Ministers of Agriculture. The substance of these Acts is to define who shall be entitled to call themselves a veterinarian and who shall be granted the privilege of practising veterinary medicine for a fee. At the same time, certain penalties are established which will apply to those who attempt to practise without proper training or qualification. In exchange for these legal assurances of the right to practise veterinary medicine, the members of the profession collectively give assurances that they will serve the public well and fairly. Competence is assured by conducting an examination (or its equivalent demonstration of ability) which must be passed by those entering the profession. Increasingly, it is also assumed to be the responsibility of the professional organizations to promote continuing education throughout veterinarians' careers.

In each of the Canadian provinces, the Veterinary Practice Acts give the responsibility for regulation of the profession to the major provincial veterinary association and while this dual role of licensure and conducting of the association's business gives the provincial associations strength, it also places some strictures on the conduct of the organized profession. The Associations, for example, must make it clear that their conduct is regulated in the public interest in their province and not just in protecting the interests of the profession.

Each of the provincial Associations then, has the legal responsibility for examining candidates for membership and practice, but all of them have agreed to accept the examination procedures conducted by the National Examining Board of the C.V.M.A. as part or all of that examination. All provincial Associations reserve the right to conduct an additional examination. Considable reciprocity exists between the provinces with respect to licensure and graduates of Canadian veterinary schools particularly find that they have a good deal of freedom of movement. Most of the provincial Associations grant some form of provisional license for less than one year to veterinary graduates who seem to be adequately qualified but who have not yet completed the formalities and examinations.

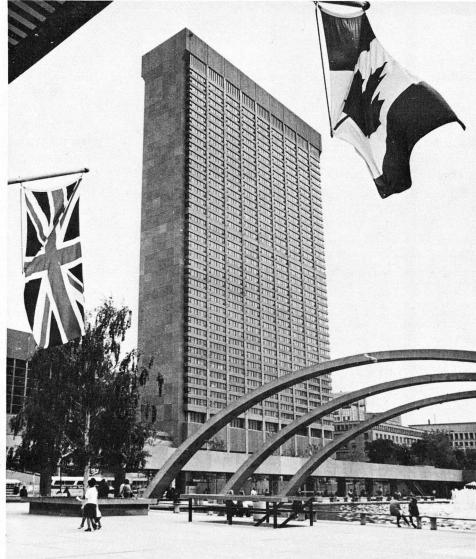
Canada has 3 colleges of veterinary medicine:

- Ontario Veterinary College, founded in Toronto in 1862 and transferred to Guelph in 1922.
- School of Veterinary Medicine, University of Montreal, Quebec, founded in Montreal in 1886, situated in the city of St. Hyacinthe since 1947 and became fully integrated to the University of Montreal in 1969. The only French-speaking veterinary school in the three Americas.
- Western College of Veterinary Medicine, University of Saskatchewan, Saskatoon, established in 1963.

# THE SHERATON CENTRE

# Something Special for Everyone

The Sheraton Centre — located in the centre of one of the world's most exciting travel destinations — is a city within a city for people.



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The bustling 43-story complex, with a daily population that fluctuates from 10,000 to more than 20,000, was conceived for today's more cosmopolitan patron — the conventioneer and the sophisticated shopper, the night-club goer, the tourist family and the honeymoon couple, the businessman and gourmet. All are at home in the modern Sheraton Centre.

The sheer size of this 1,466-room Sheraton flagship hotel, opened in October 1972, is overwhelming. It stands 530 feet high and square in counterpoint to the curvatures of Toronto's internationally acclaimed City Hall and Nathan Phillips Square, to which the hotel is linked by a pedestrian footbridge. In fact, its architectural qualities were selected in a competition by a special municipal committee to ensure that Canada's largest convention-resort hotel fully complemented Toronto's Nathan Phillips Square. While on its north side the Civic Centre provides a focal point for Toronto life, The Sheraton Centre stands on its south side in contrast as a man-made oasis of solitude — two acres of landscaped gardens with rare trees, shrubs, flowers and quietness. Outdoors is a beautiful, Olympic-sized swimming pool  $(40' \times 80')$ .

Inside, the hotel has achieved another kind of balance — huge conventional-style facilities coupled with personalized quality service to meet a multiplicity of individual interests.

With more than 46,000 square feet of meeting space and 48,000 square feet of exhibit space, The Sheraton Centre offers a wide variety of facilities for all types of seminars, conferences, sales gatherings, trade exhibits, corporate annual meetings, banquets and receptions.

- The 18,000 square foot Sheraton Hall next door is Toronto's largest in-hotel exhibition facility. It can comfortably seat 1,100 people or accommodate 80 to 100 display booths. On the same floor, there is access to a further 30,223 square feet of exhibit space, providing a maximum capacity of 300 display booths.
- On the hotel's second floor are the Dominion Ballroom, seating 700 theatre-style and 500 for a banquet, and the Civic Ballroom, seating 600 theatrestyle or 350 for a banquet.
- The Sheraton Centre has 17 fully-equipped function rooms suitable for groups ranging from 15 to 300 people. Each room has necessary equipment; builtin cable television, movie screens, blackboards, house phones, power lines, etc. In this way, delays are avoided in providing each group with its special requirements.
- On its fourth floor, there are ten large and elegantly designed hospitality suites, each with its own distinct decor. There are also two seminar-styled theatres in the hotel, one seating 680, the other 344.

Behind the facilities are fresh approaches to service beginning from the time the convention group arrives:

- A speedy checkout for the conventioneer with a recognized credit card is available when he or she arrives. The form is imprinted with the guest's credit card and, on departure, delays and line-ups are avoided simply by leaving the signed form at either the Front Desk or at the Guest Service Desk in the lobby. An itemized statement is mailed the following day.
- The Sheraton Centre is one of the few hotels with a convention department that is exclusively geared to servicing a convention as a convention. The department, with a staff of 30 specialists, assigns a full-time co-ordinator to each convention. His job is to look after all details and planning for that convention and to make on-the-spot decisions when the convention organizer requires last-minute changes.
- Attention joggers! The centre has a jogging guide which lists 3 different routes (2, 3 or 5 miles) in the city of Toronto.

#### THE ROYAL AGRICULTURAL WINTER FAIR



(Photo courtesy of Clive R. Tisdale, P.Ag., Director of Communications, Royal Agricultural Winter Fair.)

Exhibitors from 60 nations and 30 of the United States will gather this year at Canada's 52nd Royal Agriculture Winter Fair to view and select top breeding stock and field crops, beautiful floral displays and enjoy the pageantry, brilliance and showmanship of the Royal Horse Show. A block of 1,000 tickets for the latter has been reserved for AABP Convention participants on Thursday evening, November 20 and 200 for Saturday evening, November 22. The Royal Horse Show will feature international equestrian competition. Open Jumpers, Roadsters, Hackneys, Palominos, Arabians, Ponies, Draft Horses and Hunters

# Memb AMERICAN

# **Membership** Application

#### AMERICAN ASSOCIATION OF BOVINE PRACTITIONERS

I hereby make application for membership in the AMERICAN ASSOCIATION OF BOVINE PRACTITIONERS and agree to abide by its by-laws, to actively support its objectives, and enclose \$25.00 in payment of first year's dues.

			Date		
Nome					
NameLast		F	irst	Middle	
Address					
Street		City	County	State	
Telephone		AVI	MA Member		
Year of Graduation	C	ollege	CVMA N	lember	
Nature of Employment (Practice,	Teaching, e	tc.)			
Percentage of Practice Time Devo	oted to Cattle	e	Dairy	Beef	
Former address if you have moved within the last two years.	d		Street		
		City	State	Z	p
Signature					
	P.O. Box W. Lafaye	ette, Ind. 479	906		
SHARE IT WRITE YOUR P TO US FOR NEXT YEAR'S BO				TON NOW AND SE	ND IT I
Signature					
Address					
City, State, Zip					
MAIL		1226 N. Line	ms, F.R.C.V.S., Edi coln klahoma 74074	tor	

(For full prescribing information, see package insert.)

#### Lasix<sup>®</sup>(furosemide)\* **Powder Packet (2g)**

A diuretic-saluretic for prompt relief of edema CAUTION: Federal law restricts this drug to use by or on the order of a licensed veterinarian

#### INDICATIONS

Cattle: Lasix' (furosemide) is indicated for the treatment of physiologic parturient edema of the mammary gland and associated structures.

#### **CONTRAINDICATIONS - PRECAUTIONS**

CONTRAINDICATIONS - PHECAUTIONS Lasix\* (fursosmide) is a highly effective diuretic-saluretic which, if given in excessive amounts, may result in dehydra-tion and electrolyte imbalance. Therefore, the dosage and schedule may have to be adjusted to the patient's needs. The animal should be observed for early signs of electrolyte include and provide interpretation of the provided. Soft imbalance, and corrective measures administered Early signs of electrolyte imbalance are: increased thirst, lethargy, drowsiness or restlessness, fatigue, oliguria, gastrointestinal disturbances and lachyaardia. Special atten-tion should be given to potassium levels. Lasix\* (furosemide) may lower serum calcium levels and cause tetany in rare cases

of animals having an existing hypocalcemic tendency.

Although diabetes mellitus is a rarely reported disease in animals, active or latent diabetes mellitus may on rare occasions be exacerbated by Lasix\* (furosemide)

Electrolyte balance should be monitored prior to surgery in patients receiving Lasix\* (furosemide). Imbalances must be corrected by administration of suitable fluid therapy. Lasix\* (furosemide) is contra-indicated in anuria. Therapy should be discontinued in cases of progressive renal disease if increasing azotemia and oliguria occur during the treat ment. Sudden alterations of fluid and electrolyte imbalance in an animal with cirrhosis may precipitate hepatic coma; therefore, observation during period of therapy is necessary. In hepatic coma and in states of electrolyte depletion, therapy should not be instituted until the basic condition is improved or corrected. Potassium supplementation may be necessary in cases routinely treated with potassium-depleting steroids.

#### WARNINGS

Lasix\* (furosemide) is a highly effective diuretic and, as with Lask (turbsemide) is a highly effective objective durenciallo, as with any duretic, if given in excessive amounts may lead to ex-cessive duresis that could result in electrolyte imbalance, dehydration and reduction of plasma volume, enhancing the risk of circulatory collapse, thrombosis and embolism. Therefore, the animal should be observed for early signs of fluid depletion with electrolyte imbalance, and corrective measures administered. Excessive loss of potassium in pa-tients receiving dividuals or its plyconides may precipidate tients receiving digitalis or its glycosides may precipitate digitalis toxicity. Caution should be exercised in animals administered potassium-depleting steroids.

Sulfonamistic programmer and the provided of the subscription of t tive surgery

CATTLE: Milk taken from animals during treatment and for 48 hours (four milkings) after the last treatment must not be used for food. Cattle must not be slaughtered for food within 48 hours following last treatment.

Lasix' (furosemide) is not indicated during the second trimester of pregnancy DOSAGE AND ADMINISTRATION

DOSAGE AND ADMINISTRATION The usual dose of Lasix' (urosemide) is 1 to 2 mg/lb body weight (approximately 2.5 to 5 mg/kg). A prompt diuresis usually ensues from the initial treatment. Diuresis may be in-titated with Lasix' (furosemide) Injection 5% and main-tained by oral treatment following a 12-hour interval.

#### DOSAGE:

Oral: CATTLE

The contents of 1 packet (2g) per cow daily to be admin-istered with the animal's individual concentrate ration. Treatment not to exceed 48 hours postparturition.

#### Parenteral: CATTLE

Parenteral: CATILE The individual dose administered intramuscularly or in-travenously is 500 mg (10 ml) once daily or 250 mg (5 ml) twice daily at 12-hour intervals. Treatment not to exceed 48 hours postparturition.

#### HOW SUPPLIED

Parenteral

arenteral: Lasix\* (furosemide) Injection 5% (50 mg/ml) Each ml contains: 50 mg furosemide as a diethanoi-amine salt preserved and stabilized with myristyl-gamma-picolinium chloride 0.02%. EDTA sodium 0.1%, sodium sulfite 0.1% with sodium chloride 0.2% in dis-tilled water, pH adjusted with sodium hydroxide. Available in 50 ml multidose vials.

#### Oral:

ac. Lasix® (furosemide) 2g Powder Packet Each packet contains 2g of furosemide: 4-chloro-N-furfuryl-5-sulfamoylanthranilic acid plus inert ingred-

Available in boxes of 12 packets each

# FOR VETERINARY Lasix Powder Packet

(furosemide) Powder Packet

# $\odot$ Copyright American Association of Bovine Practitioners; open access distribution

12 x 28.35 g PACKETS

FOR VETERINARY USE ONLY

asix

(furosemide)\*

Powder Packet

M

REACH OF CHILDREN

CAUTION: FEDERAL LAW RESTRICTS THIS DRUG TO USE BY OR ON THE ORDER OF A LICENSED VETERINARIAN

1000

# A new way to treat udder edema in cows.

Safe - No risk of abortion.

Effective - Two-day therapy rapidly relieves edema, thereby lessening the risk of permanent udder damage.

**Convenient** - Empty contents of one packet per cow daily for two days as a top dressing on grain mixture.

Palatable - Readily accepted by cows.

Economical - No stress and associated milk loss with a feed top dressing. Milk production maintained following "milk-out" period.

#### **AVAILABLE ONLY FROM LICENSED VETERINARIANS**

Lasix<sup>•</sup> (furosemide) 2g Powder Packet Manufactured By Hoechst-Roussel Pharmaceuticals Inc Somerville, N.J. 08876 Lasix' (furosemide) Injection 5% Manufactured By Taylor Pharmacal Co Decatur Illinois 62525 Manufactured expressly for:

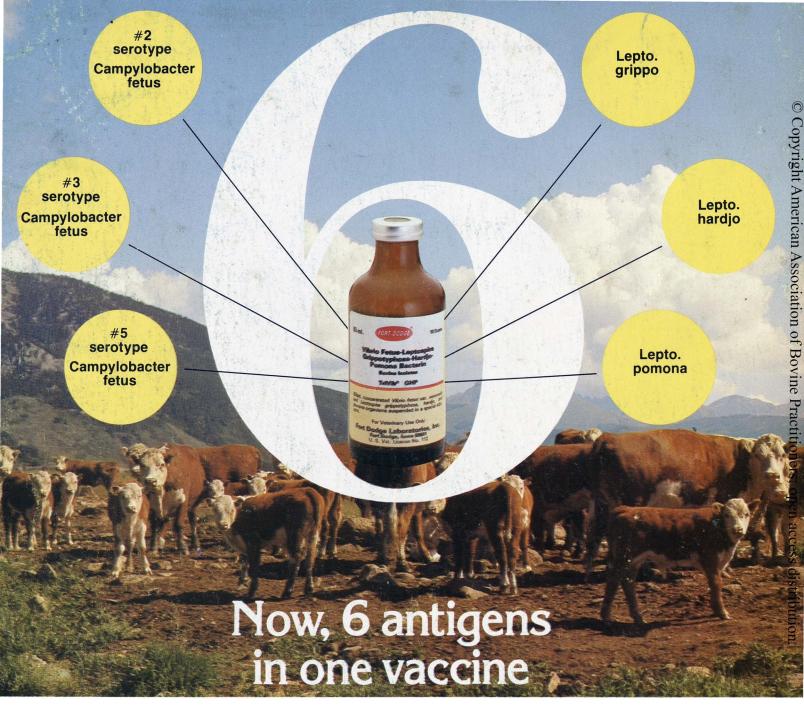


National Laboratories Corp. Subsidiary of American Hoechst Corporation Somerville, New Jersey 08876

\*U.S. Patent 3,058,882

#### Printed in U.S.A

Edition 12/78 N188-1278



# help protect size of calf crop...6 ways.

**Boosts breeding efficiency.** Now just one dose, one vaccine, one time through the chute! You shield your client's herd against the 6 major causes of infertility, delayed breeding, abortion and strung-out calf crops. New Tri-Vib® GHP can protect against all 3 cattle serotypes of *Campylobacter fetus*, which cause vibriosis—plus 3 serotypes of *Leptospira*: grippotyphosa, hardjo, and pomona. One dose, one vaccine—all with time and labor-saving ease.

**Special proven adjuvant.** Antigenic response of Tri-Vib GHP is greatly enhanced by its special adjuvant, which has been proven on millions of cattle. High SN titers and challenge studies have demonstrated the high immunogenicity and efficacy of all 6 antigens—both singly and combined.

**Wide margin of safety.** All 6 antigens are *killed*. And tested for purity and safety. The entire herd may be

vaccinated at one time, with no increased risk to pregnant or lactating cows. And you can vaccinate at any time to suit you or the owner.

**Broad-spectrum protection.** It's difficult to predict which of 3 serotypes of Vibrio or 3 serotypes of Lepto a herd may encounter. All are widespread. Protect your client *and yourself* with broad-coverage, *killed*, speciallyadjuvanted Tri-Vib GHP.



Campylobacter fetus—Leptospira grippotyphosahardjo-pomona bacterin



Fort Dodge Laboratories, Fort Dodge, Iowa 50501