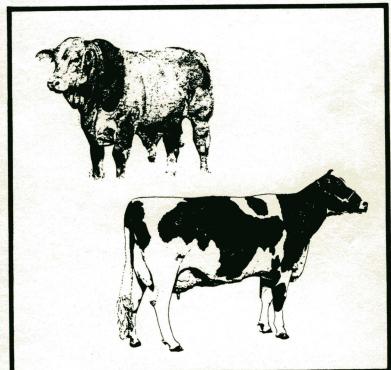
# 3rd ANNUAL FLORIDA RUMINANT NUTRITION SYMPOSIUM



**JANUARY 23-24, 1992** 

Hilton Inn Gainesville, FL

Animal Science Department
Dairy Science Department
Institute of Food and Agricultural Sciences
University of Florida



# FLORIDA COOPERATIVE EXTENSION SERVICE UNIVERSITY OF FLORIDA INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES

COOPERATIVE EXTENSION SERVICE AGRIC
SCHOOL OF FOREST RESOURCES AND CONSERVATION

AGRICULTURAL EXPERIMENT STATION

COLLEGE OF AGRICULTURE

REPLY TO:

204 Dairy Science Dept. University of Florida PO Box 110920 Gainesville, Fl 32611-0920 904/392-1958 FAX 904/392-5595

January 23-24, 1992

Dear Symposium Participants:

We welcome you to the Third Annual Florida Ruminant Nutrition Symposium. The decade of the nineties promises changes of astonishing dimensions in our animal feed and livestock industry. Technology advances of unbelievable magnitude will offer mind boggling options for new practices of beef and dairy production which will challenge our ability to adapt and compete in this new world of the future. This symposium has been planned and designed to offer you the latest in research and technology to help you meet and conquer these challenges of the nineties.

Special appreciation is expressed to the speakers at the symposium and to the sponsors for their assistance and support. Also, we wish to express appreciation to the planning committee for their work in selecting the topics and planning the program. In addition, we are grateful for the assistance received from the Animal and Dairy Science Departments of IFAS.

The American Registry of Professional Animal Scientists have assigned 6 units of Continuing Educational Units to this symposium. We trust that you will find the symposium both enjoyable and educational.

Sincerely yours,

Bernie Haskins

Bernie Haskins, Owner Bernie Haskins Company Sincerely yours,

Barney Harris, Jr. Pairy Science Department

## TABLE OF CONTENTS

SPONSORS	iii
POTENTIAL USE OF ESCAPE PROTEIN FOR GRAZING CATTLE Dr. David P. Hutcheson	1
USE OF BLOOD UREA NITROGEN CONCENTRATION TO GUIDE PROTEIN SUPPLEMENTATION Dr. Andrew Hammond	9
THE DOLE OF DVDASC PROTEIN IN CUIDILVING	
THE ROLE OF BYPASS PROTEIN IN SUPPLYING AMINO ACID NEEDS OF LACTATING COWS Dr. Jack Van Horn and Dr. W. J. Powers	19
MATCHING PROTEIN AND ENERGY SUPPLEMENTS TO FORAGE QUALITY Dr. John E. Moore	31
MANAGING FACTORS THAT AFFECT THE PRODUCTION AND UTILIZATION OF QUALITY FORAGES Dr. William P. Kautz	45
CAST TOTAL	
MICROBIAL FEED ADDITIVES FOR DAIRY CATTLE Dr. Brian L. Perkins	69
OPTIMIZING MACRO MINERAL NUTRITION: PRE- AND POST-CALVING Dr. Paul T. Chandler	76

NUTRITION AND ENVIRONMENT Dr. Jack H. Britt	93
THE INFLUENCE OF FORAGE TYPE ON THE PRODUCTION RESPONSE OF LACTATING DAIRY COWS SUPPLEMENTED WITH DIFFERENT TYPES OF DIETARY FAT Dr. William A. Smith and Dr. Barney Harris, Jr	102
LAMINITIS: A MAJOR CAUSE OF LAMENESS IN FLORIDA DAIRY CATTLE Dr. Jan K. Shearer	128
NUTRA-MERGE: A SIMPLIFIED COMPUTERIZED RATION FORMULATION PROGRAM FOR BEEF AND DAIRY CATTLE Dr. Dee L. Cross	136

### **SPONSORS**

BERNIE HASKINS COMPANY, INC.

P.O. Box 1330 Alachua, FL 32615 (904) 462-1389

Dr. Bernie Haskins, President

CHR HANSEN'S BIOSYSTEMS

686 Central Ave. Rahway, NJ 07065 (201) 382-2439

Mrs. Jane Allman, Regional Sales Mgr

LAKELAND CASH FEED

P.O. Box 116 Lakeland, FL 33802 1-800-282-9733

Dr. Jim Chapman, Nutritionist (813) 682-6144

MONSANTO AGRICULTURE CO.

Rt. 1, Box 38C 4931 Dora Dr Mt. Dora, FL 32757 (314) 694-3589

Mr. Steve Coop (904) 735-0184

NUTRITION SERVICE ASSOCIATES

822 NW 45th Terr. Gainesville, FL 32601

Dr. John W. Stroud (904) 371-1600

PIONEER HI-BRED INT. INC.

Microbial Genetics 4601 Westown Pkwy, Suite 120 West Des Moines, IA 50265 1-800-247-6803

Dr. Daryl Hammer, Regional Sales Mgr. (803) 468-4979

PITMAN-MOORE, INC. 7316 St. Clair Dr. Charlotte, NC 28226

(704) 846-2428

Mr. George Dyar, Sales Manager

UNITED STATES SUGAR CORP.

P. O. Drawer 1207 Clewiston, FL 33440-1207 (813) 983-7946

Mr. W. M. Gober, Director of Sales

ZINPRO CORPORATION 5941 Woodfield Dr.

Kernersville, NC 27284 (612) 944-2736

Mr. Kevin Perryman, Southeastern Dist Mgr (919) 996-0840

### **PLANNING COMMITTEE**

# BARNEY HARRIS, JR., CO-CHAIRMAN BERNIE HASKINS, CO-CHAIRMAN

CLARENCE AMMERMAN

BILL KUNKLE

**DAVID BEEDE** 

**CHARLIE STAPLES** 

JIM CHAPMAN

JACK VAN HORN