Quiz Bowl Announces Tonight's Match Times

Quiz Bowl teams competing in the first three matches tonight must report at 7 p.m.

They are FarmHouse II and Pi Beta Phi I, who will meet at 7 p.m.; Delta Upsilon vs. Unicorms, 7:25 p.m.: and the Blanks vs. Pharmacy College 7:50 p.m.

Teams participating in the final three matches of the evening must be checked in by 8:15 p.m. They are Phi Psi Wizards vs. Alpha Delta Pi I 8:15 p.m.; Ag Men vs. Delta Gamma II, 8:40 p.m.; Piper Hall vs. Sigma Chi, 9:05 p.m.

Campus Calendar

TODAY

U.C.C.F., Union 240, 11:30 a.m.

PLACEMENT LUNCHEON, Union 241, 12:30 noon.

QUIZ BOWL COMMITTEE, Union 332, 3 p.m.

SCRIP, Union 232, 3:30 p.m.

UNION CONTEMPORARY ARTS COMMITTEE, Union 234, 4:30 p.m.

Y.W.C.A. CABINET, Union 332, 4:30 p.m.

Y.W.C.A. JR. CABINET, Union 334, 4:30 p.m.

ENGINEERING FACULTY DINNER, Union Pan American, 6 p.m.

JR. PANHELLENIC, Union Party Room, 7 p.m.

STUDENT COUNCIL QUIZ BOWL, Union Conference Rooms, 7 p.m.

ALPHA TAU ALPHA, 7 p.m., Food and Nutrition Building lounge East Campus.

ALPHA PHI OMEGA, Union 332, 7 p.m.

MATH COUNSELOR PROGRAM, Union 349, 7:30 p.m.

ARCHITECTURE DEPT., Presentation of Salt Creek Redevelopment Program, Union 240, 241, 7:30 p.m.

AUF ACTIVITIES QUEEN INTERVIEWS, Union 334, 8 p.m.

AWS HOUSE OF REPS., Union, 4:30 p.m.

PLAYBOY PHILOSOPHY, YWCA Seminar, South Party Room, Union, 7 p.m.

BLOCK AND BRIDLE CLUB meeting 7:15 Ag Union.

India Association Film Scheduled Saturday

A film from India will be presented by the India Association Saturday at 7 p.m. in the Student Union. The film is "Tere Ghar Ke Samne" (In Front of Your House) starring Dev Anand and Nutan.

There will be English subtitles with the film. Tickets are available from mebers of the India program and executive committees. Admission is $1.00 per person. Contact Mrs. Pramila Chandeen at 434-2711 for tickets.

Enzyme Study Successful

Enzymes, the highly individualistic dictators of biological chemistry, have been regimented for the benefit of American agriculture by a University scientist.

The work of Dr. John H. Pazur, chairman of the NU Department of Biochemistry and Nutrition, and his research assistants, Kjell Kleppe and Austra Cepure, has been a big factor in the decisions of private firms to build two new plants for processing starch into glucose, a form of sugar.

The project was supported in part by the Agricultural Products Research Fund of the State Department of Agriculture.

"These plants will process many millions of bushels of corn for the industrial market," according to Dr. Pazur.

One of the plants is being built at Elkhart, Ind., by the Miles Chemical Company, and the other at Decatur, Ill., by the A. E. Staley Manufacturing Company.

The glucose from the plant in Indiana is expected to replace raw materials now imported by the fermentation industry, thus broadening the market for U.S.-grown starch sources such as corn.

The glucose from the Illinois plant will be used in the syrup and distilling industries.

Enzymes are substances produced in living bodies which transform other organic substances into different forms without themselves being affected.

Hundreds of different enzymes have been isolated up to now, and apparently many more are awaiting discovery.

Each enzyme works on a single other substance, called its substrate, transforming it into a specific second substance, or product. They are so potent that a single molecule of certain enzymes can transform hundreds of thousands of molecules of substrate into product in a minute.

The materials with which Dr. Pazur works are crude enzyme preparations obtained by growing microorganisms in appropriate media or by malting grain.

These preparations often contain several different enzymes which can act on starch and which can be in varying ratio to each other, depending on variations in the conditions under which they are produced.

Undesirable side effects sometimes result from the use of these impure preparations in industrial processes.

Dr. Pazur's work had a double purpose: to develop techniques for obtaining pure enzymes, and to use these techniques to determine the kinds of enzymes in various preparations.

He successfully adapted two techniques previously used for other purposes.

One is chromatography on ion-exchange materials. This separates ionized molecules of different types so that the different components of a substance can be identified.

The other is a density-gradient centrifugation procedure previously used for purification of viruses. In this procedure the molecules are separated according to their weight in a centrifuge, much as the old-time cream station operator used to determine the actual butterfat content of cream.

These techniques can be used for work with many kinds of enzymes, Dr. Pazur reported. They have received world wide attention.

By using the pure enzyme glucoamylase, the conversion of starch to glucose can be markedly increased, he said.

Crossley International imports

We are importers of

Decoratives
Furniture
China
Jewelry
Mens Wearing Apparel
Ladies Wearing Apparel
Linens
Dolls
Porcelain
Leather
Imports from around the World

SHARP Bldg. 204 S. 13th St.
PHONE 432-8326
OPEN THUR. NIGHTS TILL 9:00

PLACEMENT INTERVIEWS

Monday, Nov. 9

Los Angeles County Civil Service Commission; students receiving degrees in B.S., M.S.-C.E.

Marathon Paper, Division of American Can Company; students receiving degrees in B.S., M.S.-Bus. Adm., Lib. Arts.

Collins Rado Company; students receiving degrees in B.S., M.S., Ph.D.-E.E.; M.S.-M.E.

The Procter & Gamble Company—Research and Development Department; students receiving degrees in Ph. D.-Chem. (Org., Inorg., Phys., Analyt., Biochem.)

The Procter & Gamble Company; students receiving degrees in B.D., M.S.-Ch.E., C.E., E.E., M.E.

Arthur Andersen & Company; students receiving degrees in B.S., M.S.-Accounting, Bus. Adm., Engrg. Law, Lib. Arts with at least 6 hrs. of Accounting.

Ernst & Ernst; students receiving degrees in B.S., M.D.-Accounting, Law with undergraduate training in Accounting.

Cities Service Gas Company; studnets receiving degrees in B.S-M.E., C.E., E.E., Ag.E., I.E., Ch.E.

Tuesday, Nov. 10

Deere & Company; students receiving degrees in B.S., M.S., Ph.D.-Ag.E.; M.S.-M.E., I.E., Bus. Adm., Acctg.

FMC Corporation—Niagara Chemical Division; students receiving degrees in Ph.D.-Ch.E.; M.S., Ph.D.-Chem. (Phys., Inog., Biochem., Org.)

FMC Corporation—Inorganic Chemicals Division; studnets receiving degrees in B.S., M.S.-M.E., Ch.E.

Marathon Paper, Division of American Can Company; students receiving degrees in, as above.

International Milling Company Inc.; students receiving degrees in Agriculture (interviews on Agricultural Campus).

Bell System (A.T.&T—Long Lines, Northwestern Bell, Sandia, Western Electric, Bell Lab); students receiving degrees in B.S.-B.A., M.S.-M.A.-Bus. Adm., Lib. Arts, E.E., M.E., C.E., Arch. E.; All degrees—Math., Physics, Chem., Statistics.

Wednesday, Nov. 11

Deere & Company; students receiving degrees in, as above.

Bell System (A.T.&T.-Long lines, Northwestern Bell, Sandia, Western Electric, Bell Lab); students receiving degrees in, as before.

Esso Research and Engineering Company Humble Oil & Refining Company; students receiving degrees in B.S., M.S.-Che.E., E.E., M.E.; Ph.D.-Chem.

Celanese Corporation of America; students receiving degrees in B.S., M.S.-M.E.; All degrees—Chem., Ch.E., Physics.

Black & Veatch, Consulting Engineers; students receiving degrees in B.S.-C.E., E.E., M.E., Arch.E., Ch.E.

Thursday, Nov. 12

Esso Research and Engineering Company Humble Oil & Refining Company; students receiving degrees in, as above.

Bell System (A.T.&T.-Long Lines, Northwestern Bell, Sandia, Western Electric, Bell Lab); students receiving degrees in, as above.

Socony Mobil Oil Company, Inc.-Research Department; students receiving degrees in Ph.D.-Chem., Physics, Math., Ch.E.

Gulf Oil Corporation; students receiving degrees in B.S., M.S.-C.E., E.E., M.E., Ch.E.; Ph.D.-Geol.

Scientists Study Calf Crop

"Low calf crop percentage represents a major economic loss to the beef cattle industry," according to Dr. Donald Clanton, of the University department of animal science.

"The economic importance of this problem to the United States and especially to the Great Plains area is readily apparent when one considers the size of the cattle population and the impact that even a small improvement in performance would have on the industry," Clanton pointed out.

He added that improvement of calf crop percentages offers one of the greatest opportunities for reducing production costs and improving beef cattle industry.

University livestock researchers are studying the relationship of energy intake by the bred heifer on subsequent calf crop percentage.

Co-leaders of the four-year project are Clanton and Dr. Dwane Zimmerman, also of the animal science department.

One hundred half-sister heifer calves will be used this season for the first replication of the study and an attempt will be made to acquire 50 pairs of identical twins in the spring and summer of 1965 for use in the second replication of the study to be conducted in 1966-1967.

"Most beef cow herds in the United States subsist the year round on native range or pasture. Others utilize pasture and range forage part of the year and receive hay the remainder of the year.

"Regardless of the type of operation used, major emphasis is placed on utilizing the native forage and avoiding the use of feed supplements, Clanton said.

Recent evidence indicates that adequate energy intake is necessary for good reproductive performance. This is especially important for the bred heifer and young lactating cow. Protein seems to have less direct influence on reproduction but probably needs to be maintained in a balance with energy intake in maximum intake and utilization of native range forage is to be obtained.

"Little is known concerning the influence of energy intake before calving on endocrine function and energy utilization and retention following calving in the young lactating beef female," Clanton points out.

An understanding of the mechanisms by which energy affects reproduction would aid in the development of feeding practices which would support maximum reproductive performance.

Clanton outlined the overall objectives of the project as follows:

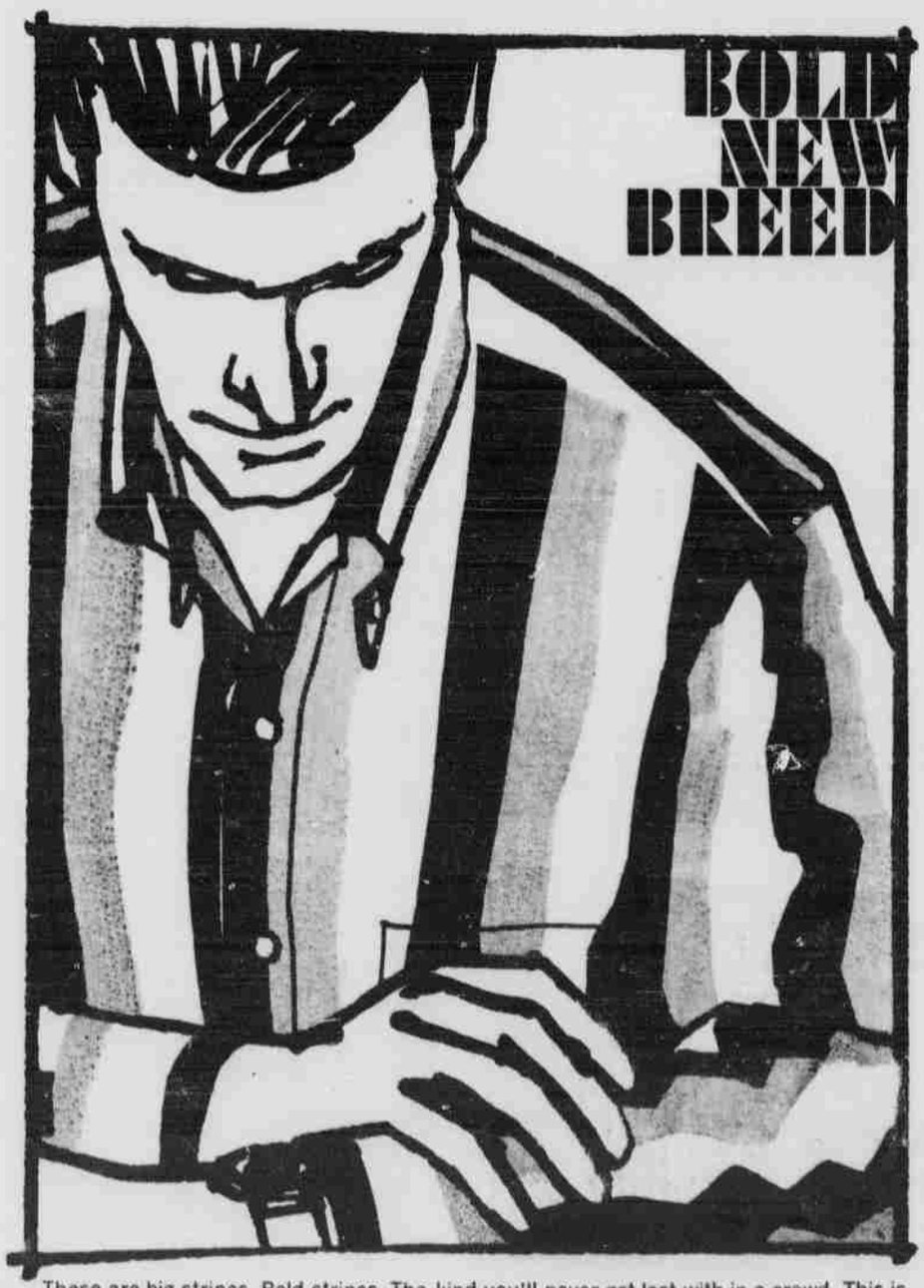
To determine the changes in post-calving endocrine function in the two-year-old beef heifer induced by high and low levels of pre-calving energy intake.

To determine the energy retentiin in the post-calving two-year old beef heifer as influenced by pre-ialving energy intake.

To determine the relationship between endolrine function, energy retention and the interval from calving to first estrus (heat cycle).

Read Want Ads Nebraskan

BOLD NEW BREED



These are big stripes. Bold stripes. The kind you'll never get lost with in a crowd. This is Arrow Cum Laude: a bold new breed of sport shirt that asserts itself, but always in good taste. Has long swooping collar points and a tapered body line to match. Made to your exact sleeve length, like a dress shirt. In red and gray, or red and black combinations. Pure, soft, "Sanforized" labeled cotton. All for a timid price of $5.00. A bold new breed of shirt for a bold new breed of guy. ARROW®

You could be one of the most important persons we talk to this year!

We're very active in the field of communications, and we're growing. New technological advances have broadened areas of need for good people who want to develop and who will become experts in their jobs.

To fill our management ranks we'll naturally reward those who can think for themselves, solve problems, and produce under pressure.

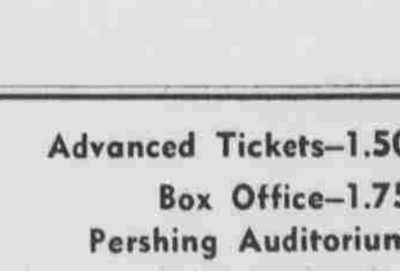
Make your first move to a bright management future by signing up now at your Placement Office for an interview appointment. Our recruiting team will be on your campus very soon.

Because of our policy of promoting from within, you could earn one of our top management jobs. That makes it important that we talk to you.

And important that you talk with us.

The Bell System—where people find solutions to exciting problems—matches other companies in benefits, salaries and working conditions. The Bell System companies are equal opportunity employers.

We work in space...



and under the sea... to provide the world's finest communications

BELL SYSTEM
American Telephone and Telegraph Co. and Associated Companies

Kosmet Klub Presents:
November 14th—8 p.m.

"MAD, MAD, MANIA"

Advanced Tickets—1.50
Box Office—1.75
Pershing Auditorium