

# NEWS BULLETIN

UNIVERSITY OF GUELPH

Vol. 18, No. 24

June 20, 1974

## Dairy scientists gather here for conference

Seven hundred dairy scientists will gather on campus next week for the 69th annual meeting of the American Dairy Science Association, only the second time it has been held outside the United States.

The latest research into dairy products and milk production will be discussed at the conference. The program will cover many facets of the industry such as microbiology, processing, chemistry, cheese manufacturing, sire evaluation and pedigree selection, to name a few.

A symposium will examine Ontario's central milk testing program over the past five years. Other parts of the program will deal with continuous cheese making, expansion of the influence of the dairy herd improvement program and stress in dairy cows. Nutrition and its effect on reproduction in dairy herds will also be discussed, as will milk proteins in dairy and food processing, cultured dairy foods in nutrition and health and the application of enzyme technology in dairy manufacturing.

In addition to members of the association and their families, the conference will be attended by students, breed and producer organization members, government personnel and members of the farm press.

Animal and poultry science professors J.B. Stone and D.M. Irvine are co-chairmen of the planning committee. The last time the conference was held in Canada was also at OAC in 1947.

All interested people on campus are invited to attend the sessions which run from Monday until Wednesday, June 24-26 with registration on Sunday night.

*Please don't forget*

## Develop amniotic test for cattle

Biomedical researchers at the University of Guelph are able to detect cytogenetic defects of cattle fetuses as well as their sex by testing amniotic fluid, a development with important implications for cattle breeders.

The technique, which involves the examination of chromosomes from pregnant cows, is the result of about six months work by Professor P.K. Basrur, of the Ontario Veterinary College, and graduate student Dr. Ariff Bongso. Since the end of the winter semester they have been assisted by Craig Underhill, a DVM student who was awarded a summer research studentship by the college.

Cattle breeders now have no way of determining the sex or presence of chromosome defects in fetuses. Owners of herds wanting only cows or only bulls have to wait the full nine-month gestation period before discovering the sex of the calf. If a calf is of the wrong sex or born with chromosome defects, development of the herd is set back and nine months wasted, Professor Basrur explained.

When the new technique is ready for general use, breeders will be able to obtain the vital information between 60 and 90 days into the gestation period. If the fetus is of the wrong sex or has defects, it can be aborted with little chance of complications, and breeding can be carried out again, resulting in a much more efficient development of the herd.

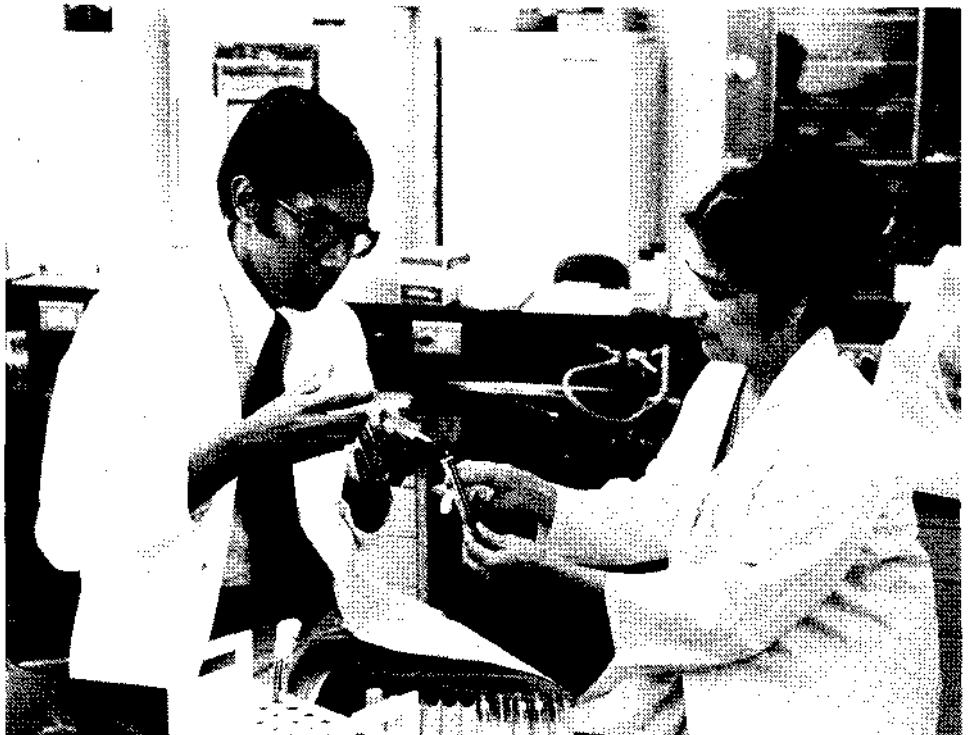
The researchers are now working on finding

the ideal culture set-up which could cut down the waiting period before chromosomal examination from the present time of about a week to only three or four days, Dr. Bongso said. The technique is in some ways similar to the method now used to determine the sex and presence of chromosomal defects in human fetuses, but no such technique was available for veterinary purposes until the present time.

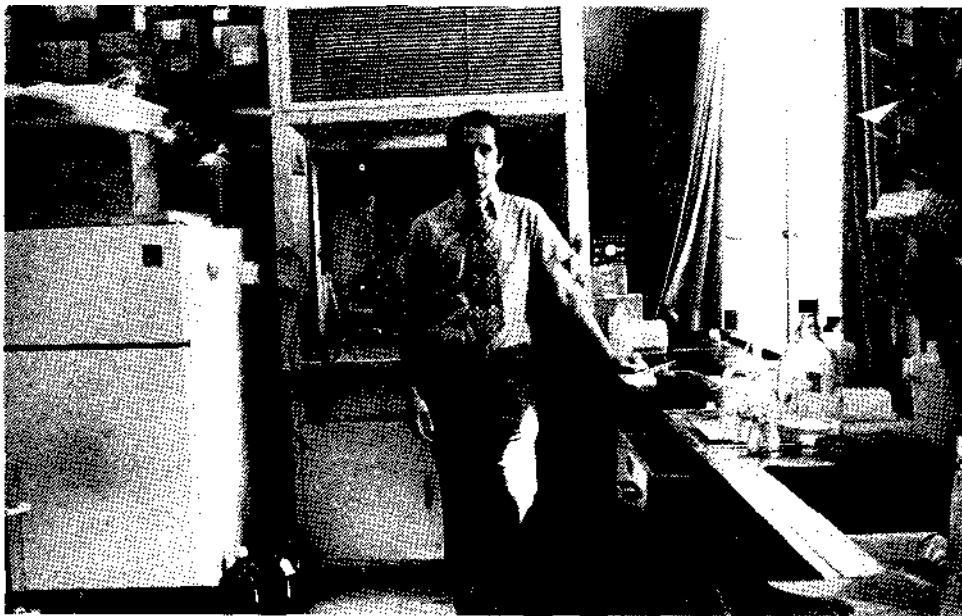
The new technique involves drawing amniotic fluid from around the developing fetus and then processing it to separate cells which are placed in a growth medium to incubate at 37°C for several days. After the growth period, the chromosomes in the cells can be examined to determine the sex and presence of any chromosomal defects.

The system should also be of interest to cattlemen who are paying for ovum transplants from prize animals and then stand a chance of getting a calf that is either of the wrong sex or chromosomally defective, Professor Basrur said. The testing can also be done on other animals which give birth to only one offspring at a time, such as horses.

When the system is ready for general use (in the not too distant future) veterinarians will be able to draw samples of amniotic fluid, but these will have to be sent to a cytogeneticist for examination. The research team has already completed a film to demonstrate the system to both DVM students and practising veterinarians.



Dr. Ariff Bongso, left, and Professor P.K. Basrur, right, put a sample of specially processed amniotic fluid from a pregnant cow into a growth medium. Testing of the sample will enable researchers to determine the sex and presence of any chromosomal defects in the animal's fetus.



Mass Spectrometry of Pesticides and Pollutants is the title of a book written by chemistry professor S. Safe (pictured above in his lab) and Dr. O. Hutsinger of NRC, and recently published by CRC Press in Cleveland. The book deals with many of the newer ionization techniques as well as the mass spectra of pesticides according to their chemical functionality. Professor Safe and his colleagues are now using mass spectrometry in studying the photolytic and metabolic breakdown of chlorinated pollutants and pesticides. The technique is invaluable in the detection and identification of breakdown products, Professor Safe says.



Professor Stoskopf

## Neal Stoskopf appointed director of diploma course

Grassroots teaching: that's what being appointed director of the Ontario Agricultural College's Associate Diploma Course in Agriculture program means to Professor Neal Stoskopf.

The appointment becomes effective July 1, and crop science Professor Stoskopf, says he's really pleased, especially as it means he'll be teaching some diploma courses. He hasn't taught any of these courses for several years and says he's really missed the work. A professor gets a good feeling when he knows he's made an impression on the country's future farmers and knows they're going to try it his way as soon as they get the chance, he explained.

Giving a good practical course in modern farming to students, many of whom will be returning to the farm, is an important aspect of an agricultural college, he commented. "It's grassroots teaching."

Professor Stoskopf is taking over the post from Professor W.S. Young who was also coordinator of agricultural extension for OAC and who will continue in that position.

The new director hopes there will still be some time for him to spend on his research work in the field of wheat breeding, work that has made up the subject matter of most of the 20 articles he has written for academic journals since joining the OAC staff about 12 years ago. Two of those articles also dealt with agricultural education.

A farm boy himself from Mitchell, Professor Stoskopf attended OAC, receiving his BSA in 1957 and his MSA in 1958. He received his Ph.D. from Macdonald College, McGill University in 1962.



Ken Kasha and Elwood Hatley enjoy a quiet moment during the haploids conference arranged by Crop Science and Continuing Education, under the chairmanship of Professor Kasha.

## Haploid conference gets world-wide support

Some 250 scientists from around the world spent a week here sharing research findings and knowledge on haploid breeding. The technique reduces the time involved in releasing new and improved plant varieties, varieties needed for better insect and disease resistance. Where it normally takes 12 to 15 years to ready a variety for use, the haploid technique allows the process to take place in 7 years.

The conference was organized by the university, and held as part of the OAC centennial celebrations. Delegates attended from the United States, Canada, Britain, France, Denmark, Spain, India, Germany, Italy, Australia, and Peru, as well as a number of other countries. Several University of Guelph crop scientists and geneticists are actively working on the haploid breeding technique.

## Rhythmic gymnastics

A new six week rhythmic gymnastics session for women begins Thursday, June 27. Classes will be from 7 - 8 p.m. in the old dance studio. Registrations are being taken now in the Athletics Centre, students \$2 and others \$8.

## Co-op top ten

Sex, politics, and fantasy form the subject matter for a lot of leisure time reading for members of the university community according to the list of best sellers for May from the campus bookstore run by the Guelph Campus Co-op. *Joy of Sex* leads the list, with two books on the controversial Whitehouse-Watergate transcripts coming in next, and *Breakfast of Champions*, by Kurt Vonnegut, Jr., ranking fourth.

The top ten best sellers for May were:

1. Joy of Sex — Alex Comfort, M.D.	\$5.95
2. Presidential Transcripts — Dell	\$2.45
3. Whitehouse Transcripts — Bantam	\$2.50
4. Breakfast of Champions — Kurt Vonnegut Jr.	\$2.65
5. Love and Will — Rollo May (Dell)	\$1.75
6. The National Dream and The Last Spike — Pierre Berton	\$4.95
7. August 1914 — Alexander Solzhenitsyn	\$2.25
8. Permanence and Change David Nasby	\$7.50
9. Breathing Space — John Bruce	\$3.25
10. Nutrition Canada — Department of Health and Welfare (National Survey)	\$2.75

## Day in the country

If you fancy a picnic and drive through some scenic neighboring countryside, you're just the person needed to take part in a university project. A research team in the School of Agricultural Economics and Extension Education has developed a method of classifying the scenic quality of the countryside. The question now is to what extent others agree with the ratings of different landscapes by this system. These ratings will be compared with the views of members of the university community who volunteer to join a minibus trip through nine landscape units in the Acton-Caledon-Hillsburgh area. Transportation, lunch and coffee will be provided. The first trip is planned for next Tuesday, June 25, leaving Guelph at 9:15 a.m. and returning about 4:30 p.m. If there is sufficient response other trips may be arranged. Anyone interested in participating in the project should contact Professor Gray at Ext. 2780 or Miss Taylor at Ext. 3037.

## Visiting psychologist

Vance Hall who is known for his work with behavior modification will visit the campus June 27 and 28, sponsored by the Psychology Department. Dr. Hall is director of the Juniper Gardens Children's Project in Kansas City, a cooperative effort of community and university. He will speak on training parents and teachers to be more responsive and effective through behavior modification on Thursday, June 27 at a colloquium. On the Friday he will give a seminar on applied behavior analysis research designs. Further information will be available in next week's *News Bulletin*, or may be obtained from the Psychology Department, Ext. 2162.

## Centennial medal

Norman Harrison, agricultural representative in Thunder Bay for 32 years, was awarded an OAC centennial medal last week. He helped develop 4-H and junior farmer programs in the north, helped increase sheep farming and introduced an artificial insemination program, thus raising the quality of livestock. Mr. Harrison also organized Dairy Herd Improvement and Soil and Crop Improvement Associations. He has been very active in horticultural association work in the province, and is now director of district 14 of the Ontario Horticultural Association.

## Montreal trip

Ottawa and Montreal will be visited by members of the International Students' Association trip June 28-July 1. Anyone interested should get in touch with Don Amichand's office, Ext. 3953. The cost will be about \$20.

## Election procedures

Regulations on electioneering on campus are listed below. Anything not covered by these guidelines must be cleared through the Department of Student Affairs and the UGCSA.

- Each candidate is allowed one rent free use of a university space. Further use must be arranged through Central Reservations at the expense of the candidate.
- One free distribution of campaign literature through campus mail is allowed each candidate.
- Each candidate is also allowed access to individual residences once, at the convenience of the hall councils.
- Campaign materials can be handed out on the mall daily between 11 a.m. and 1:30 p.m.
- P.A. or other sound equipment is not allowed on campus for election purposes.
- Posters and bulletins must be placed only in designated areas or by permission of the building authority. Approval for outdoor coverage must be obtained in writing from the director of student affairs and the president of the UGCSA.



Winners of a draw for OAC centennial mugs are shown at the faculty club bar, following the luncheon at the advance programming techniques workshop. The workshop, attended by 26 representatives of 11 Ontario universities, was sponsored by the Institute of Computer Science. Institute director K. Okashimo, left, presented the mugs to Gary Whittles, York University, Charles Hudon, University of Ottawa, and Phil Haum, University of Windsor. Ed Yourdon, centre, of New York was instructor for the workshop.

## NEXT WEEK AT GUELPH

### THURSDAY, JUNE 20

**Course** — APL FILE HANDLING, W. Marshall, 9 - 12 noon, call Ext. 3046 to register.

**Meeting** — INTER-VARSITY CHRISTIAN FELLOWSHIP, 7:30 p.m., 9th floor Arts lounge.

**TV** — SPOTLIGHT ON UNIVERSITY OF GUELPH, Cable 8 at 6:15 p.m.

### FRIDAY, JUNE 21

**Free Film** — THE SEVEN SAMURAI (Akira Kurosawa), 8 p.m., Physical Science 105.

**Worship** — MUSLIM JUMA PRAYER, 1 p.m., Arts 313.

**TV** — SPOTLIGHT ON UNIVERSITY OF GUELPH, Cable 8 at 5 p.m.

### SATURDAY, JUNE 22

**Lecture** — ANALYSIS OF E.C.G.'S BY COMPUTER, Prof. J. Gordon, Computing & Information Science, speaking in St. Joseph's Hospital continuing medical education program, 11 a.m., St. Joseph's Hospital.

### SUNDAY, JUNE 23

**Athletics** — CENTRAL ONTARIO WRESTLING SCHOOL, June 23-28 and June 30-July 5. Contact: Human Kinetics.

**Conference** — AMERICAN DAIRY SCIENCE ASSOCIATION ANNUAL MEETING, continues until June 26. Contact: Prof. J.B. Stone.

**Worship** — PUJA, sponsored by the Hindu Cultural Society, 11 a.m., 8th floor lounge Arts; STUDENT CHRISTIAN WORSHIP SERVICE, 9:30 a.m., 9th floor lounge Arts; R.C. MASS, 11 a.m., War Memorial lounge; MUSLIM ZUHR PRAYER AND QURANIC DISCUSSION, 1 p.m., 9th floor lounge Arts, open to all.

### MONDAY, JUNE 24

**Seminar** — COMPUTERIZED EXPERIMENTATION IN CHEMISTRY, U. of Bristol chemist Dr. R.M. Reeves, 4:10 p.m., Chem-Micro 260.

### TUESDAY, JUNE 25

**Worship** — ANGLICAN EUCHARIST, 12 noon (United Church students welcome), Macdonald Hall 237.

**Meeting** — BAHAI CLUB, 9 p.m., Arts 132, fireside.

**Meeting** — DISCUSSION FELLOWSHIP GROUP, with chaplain Remkes Kooistra, 8 p.m., 9th floor lounge, Arts.

### WEDNESDAY, JUNE 26

**Meeting** — ANIMALS IN RESEARCH, Prof. J.D. Schroder, speaking to the Pre-Vet Club, 7:30 p.m., Vet Animal Holding 108.

**Meeting** — UNIVERSITY OF GUELPH HOMOPHILE ASSOCIATION, 8 p.m., 9th floor lounge, Arts.

**Meeting** — BAPTIST CAMPUS FELLOWSHIP, 8:30 p.m., Canadian Room, 2nd floor, library.

### THURSDAY, JUNE 27

**Meeting** — INTER-VARSITY CHRISTIAN FELLOWSHIP, 7:30 p.m., 9th floor Arts lounge.

**Worship** — R.C. MASS, 12 noon, Newman Centre, 325 Gordon St.

**TV** — SPOTLIGHT ON UNIVERSITY OF GUELPH, Cable 8 at 6:15 p.m.

## JOB OPPORTUNITIES

**Carpenter**, Maintenance Department. Starting rate: \$4.20. Three month job rate: \$4.67.

**Custodian 3**, Housekeeping Department (Physical Resources). Starting rate: \$3.24. Six month job rate: \$3.60.

**Custodian 1**, Housekeeping Department (Physical Resources). Starting rate: \$2.75. Six month job rate: \$3.06.

**Secretary to the Director**, Ghana Project. Salary Grade 5. Salary range: \$112-\$148.

**Secretary to the Associate Director**, Administrative Systems and Programming. Salary Grade 4. Salary range: \$103 - \$136.

**Stenographer**, Psychology. Salary Grade 3. Salary range: \$93 - \$123.

**Secretary to Chairman, Soc./Anthro.** Salary Grade 4: \$103 - \$136.

**Secretary to the Director**, School of Agricultural Economics and Extension Education. Salary Grade 6. Salary range: \$123 - \$163.

**Transcript Clerk**, Office of the Registrar. Salary Grade 2. Salary range: \$85 - \$112.

**Laboratory Attendant**, Microbiology. Salary Grade 1. Salary range: \$78 - \$102.

**Secretary to the Chairman**, Philosophy. Salary Grade 4. Salary range: \$103 - \$136.

For further information please see bulletin boards or call extension 3058 or 3059.

### NORTH AMERICAN SALMON RESEARCH CENTER Assistantships in Salmonid Genetics and Nutrition

Assistantships and research facilities will be made available to a limited number of students qualified in salmon genetics and nutrition. Successful applicants will be expected to enroll in graduate studies at the university and carry out research projects at the center's facilities in St. Andrews. The North-American Salmon Research Center which is in association with the Huntsman Marine Laboratory is a multi-million dollar facility being established at St. Andrews in 1974. It is also proposed that the center will house a fish culture training school, carry out research in genetics and selective breeding, nutrition, and the population ecology of Atlantic salmon. Qualifications should be bachelor or master degree in an appropriate area of science with training and/or interest in quantitative genetics and statistics or nutrition. Apply to: Prof. E.B. Burnside or Prof. G.W. Friars, Animal & Poultry Science or Prof. S.J. Slinger, Nutrition.



Vice-president J.P. Smith received an honorary LL.D. degree at the University of Windsor. He is shown with Walter McGregor, vice-chairman of the Windsor board of governors. Dr. Smith delivered the convocation address, telling the students that universities exist not to answer our questions, but to deepen and enrich our comprehension of them.

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