

## *Penn State Dairy Professor Honored With International Award*

UNIVERSITY PARK (Centre Co.)—John Almquist, professor emeritus of dairy physiology in Penn State's College of Agricultural Sciences, recently received an honorary lifetime membership to the Association of Applied Animal Andrology in Hungary for his contributions to the field of applied animal andrology.

This is the first time this honor was extended. Two other individuals also were recognized. The Association for Applied Animal Andrology is an international scientific society with the primary objective of stimulating and disseminating information on applied animal andrology, which is the multidisciplinary study of male reproductive systems.

Almquist is known internationally for his work in artificial insemination and reproductive physiology of cattle. He has authored more than 165 research papers in scientific and professional journals and proceedings, with much of his early work dealing with semen preservation and extending the usefulness of genetically superior sires through artificial insemination.

Almquist was the first to demonstrate the value of adding penicillin and streptomycin to diluted bull semen to control bacterial growth and increase fertility. He also pioneered the use of mild-base extenders to prolong the fertile life of bull spermatozoa. Later, he added glycerol to milk to develop an improved liquid diluent, which permitted semen to retain high fertility over long periods.

Another aspect of his research showed that behavioral preparation of bulls significantly increased the number of sperm that can be harvested for use in artificial insemination. Many techniques Almquist developed for cattle have been applied to other species, including humans.

Almquist, who served on Penn State's dairy and animal science faculty from 1944 until 1982, established Penn State's Dairy Breeding Research Center. In 1999, this center was rededicated as the John O. Almquist Research Center.

He shared the 1981 Wolf Prize in agriculture—an award referred to as the agricultural equivalent of the Nobel Prize—for his work in artificial insemination for livestock improvement. His many other awards include the National Association of Animal Breeders Research Award, the 1998 Penn State Distinguished Alumnus Award, the 1998 National Award for Agricultural Excellence from the National Agri-Marketing Association and the 1999 Pioneer Award from the National Dairy Shrine.



**John Almquist is a pioneer in the field of artificial insemination for cattle.**

## **Odor Management**

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Consider odor management when planning a herd expansion and examining options for new facilities. Site selection can be a critical factor in relation to prevailing wind and residential areas. Work with engineers to evaluate options to reduce manure surface area exposed, dust control, capture and treatment of gas emissions, dilution of emissions, or manure treatment. Keeping odor in mind when making plans may save a lot of aggravation and grief in the future.