Third Annual Sunbelt Meeting for Food Animal Veterinary Medical Teaching

Oklahoma City, Oklahoma
August 6-7, 1988

The Third Annual Sunbelt Meeting for Food Animal Veterinary Medical Teaching was held at the Sheraton Century Center Hotel, Oklahoma City, Oklahoma on August 6-7, 1988, sponsored by the College of Veterinary Medicine, Oklahoma State University. The organization was established in 1985 with the first meeting in Atlanta, Georgia. Dr. James Jarrett, Rome, Georgia was the coordinator, assisted by Dr. Dilmus Blackmon, University of Georgia, Dr. K. Braun, University of Florida and Dr. David McCrary, Auburn University. Dr. Jarrett indicated that the need for better cooperation among the teaching institutions was brought about largely due to the effect of intense heat and humidity on animals during that period. Nine colleges were represented. The 1986 meeting was held in Raleigh, North Carolina and the 1987 meeting in Knoxville, Tennessee.

Representatives were present in Oklahoma City from the Universities of Illinois, Colorado State, Mississippi State, Tennessee, Purdue, Iowa State, North Carolina State, Texas A&M, Auburn, Georgia, Tuskegee and Oklahoma State. The coordinators were Dr. Louie Stratton and Dr. Larry Rice, Oklahoma State University.

Dr. J. Mack Oyler, Associate Dean, welcomed the participants. The first morning session focussed on "Trends in Animal Agriculture". Dr. Clem Ward, Department of Agriculture Economics, Oklahoma State University dealt with "Vertically Integrated Systems"; Jim Horne, Kerr Foundation discussed "Small Producer Systems" and Dr. Dee Griffin, Pioneer Inc., spoke on "The Roles of Veterinarians" followed by a panel discussion.

The afternoon session highlighted "Trends For Regulatory Veterinary Medicine". Dr. Robert Hartin, Oklahoma State Veterinarian and Dr. Al Strating, USDA APHIS Regional Director, Fort Worth, Texas presented papers and answered numerous questions. Also present were Dr. Kenneth McEnroe and Dr. Byron Behring, USDA, APHIS. A session on "Trends for Teaching Food Animal Veterinary Medicine" consisted of micro-presentations by representatives from several Colleges of Veterinary Medicine, followed by continued presentations on clinical curricula.

Dr. Kenneth McEnroe, Dr. Stratton, Dr. Robert Hartin, Dr. Al Strating and Dr. Larry Rice.

A buffet dinner was sponsored by Syntex Corporation.

The theme for the Sunday morning session was "Curriculum Proposals To Meet The Trends" with work groups making proposals on requirements for the DVM or equivalent degree to meet the needs of large herd owners, small herd owners, regulatory and food safety, and industry.

Pioneer Inc., also was a sponsor of the meeting and the AABP Board of Directors contributed $500.00 to offset speaker expenses.

The next meeting will be held at Mississippi State University in 1989.

Dr. Dee Griffin, Dr. Clem Ward, Jim Horne and Dr. Louie Stratton.

General session

Part-Time Farmers Like It That Way

FARMLINE, July 1988

Very few operators of small part-time farms in four counties of east-central Oklahoma are interested in becoming full-time farmers—apparently because it's easier to support their families by relying mainly on off-farm jobs.

Farms in the four counties were the focus of a recent study by economists Scott Sanford of USDA's Economic Research Service and Luther Tweeten of Ohio State University.

The questions the researchers sought to answer included:

1. Can small, part-time farming operations be transformed into conventional full-time farms while maintaining or increasing total family income?

2. Can families on small farms, producing traditional commodities efficiently, earn incomes comparable to their county averages?

3. Can typical small, full-time farms producing traditional commodities but earning below poverty-level incomes raise their incomes above the poverty level by expanding acreage and farming more efficiently?

"No" was found to be the answer, generally, to all three questions.

To turn a small, part-time farm into a full-time operation takes more than additional land and efficient production methods, Sanford says. Significant investment capital is also likely to be needed, plus possibly a change in the commodities produced, and maybe some family sacrifices, such as reduced spending on consumer products.

The study did find that the income on poverty-level farms could be raised by growing labor-intensive specialty crops. But few of the farmers, poverty-level or otherwise, were willing to try to learn to produce alternative crops. Sanford says that only about 5 percent of the small farm operators and part-time farmers in the study expressed interest in seeking to increase their farm income by growing specialty crops.

Sanford and Tweeten were at Oklahoma State University when this research was begun in the early 1980's. The authors say that although the study covered just one area of Oklahoma, that area has characteristics similar to much of the southeastern United States. Therefore, they say, the study can be a useful source of information about opportunities for part-time farmers, operators of small farms, and poverty-level farming in other locations as well. The study also could be helpful to government policymakers, the researchers say.

The study was concerned with potential for growth over time. The researchers made use of production budgets for farms of various sizes and types, with different levels of labor input.

"One of the surprising findings in this study was how few of the part-time farmers are interested in full-time farming," Sanford says, adding that most of them prefer living on a farm but working primarily off the farm. "Many have farm backgrounds, they enjoy country living, and the believe they are in good places to raise their families." But most are not interested in full-time farming.

Tweeten points out that few farms ever change in size. "Big commercial farms started as big commercial farms. Small farms started as small farms. And seldom do you see any crossover," he says.

Since 1959, the number of part-time farmers in this country has increased significantly. At the same time, the number of small farms with full-time operators has fallen sharply. Part-time farming now constitutes the largest segment of U.S. farms.

Part-time farmers were defined in this study as those working off the farm at least 4 hours per day for 150 or more days a year. Of the 372 farm operations surveyed, 143 (38 percent) were classified as part-time farms, 130 (35 percent) were full-time farms, and the remaining 99 (27 percent) were operated by aged (65 or older) or disabled farmers. Small farms are defined as those with less than $40,000 in annual sales of farm products.

Crops commonly observed in the survey area—including grains, soybeans, hay, pasture, and cattle and calves—were considered to be traditional crops. The "specialty enterprises" evaluated in the study were 14 vegetable crops, including sweet corn, asparagus, green beans, and watermelons.

Sanford says that operators of most small, part-time farms have relatively high off-farm incomes, supplemented by farm income under favorable conditions and capable of absorbing farm losses under adverse conditions. Therefore, they have high farm survivability potential, the economist adds.

"I did not realize," Tweeten comments, "how important off-farm work is to most operators of small farms. They could not survive without it." He said he was also surprised at the amount of off-farm work, with the subjects of this research working an average of more than 40 hours a week at off-farm jobs.

This study suggests that agricultural extension programs should consider the farm family as an earning unit for which farm income may not be the dominant component.

"Economic development of rural areas, not just better farm management, provides the best opportunity for operators of small farms to improve their situations," Sanford says.

Residues in beef cattle accidentally exposed to commercial heptachlor

D S PETTERSON , R H CASEY , G F EBELL and B L McINTYRE

SUMMARY: The changes in concentration of heptachlor epoxide (HCE) and oxychlordane (OCD) were studied in the tissues of beef cattle that had previously grazed pasture contaminated with commercial heptachlor. In 25 cows and heifers monitored over 488 days, the mean concentration of HCE decreased from 22.0 to 0.08 mg/kg and of OCD from 5.68 to 0.18 mg/kg. The respective half-lives were estimated to be 66 and 92 days.

In a controlled feeding experiment, nine steers were subjected to one of three dietary regimes; a high plane of nutrition for 81 days then a low plane for 140 days; a moderate plane of nutrition for the total period; and a low plane of nutrition for 81 days then a high plane for 140 days. Approximately five months later similar treatments were applied for 101 and 94 days. The rate of decline of HCE and OCD was consistently greatest in animals on the high plane of nutrition and lowest in those on the low plane.

Lactation did not appear to have a major effect on the rate of decline in the tissue concentrations of these compounds.

No significant ($P > 0.05$) relationships were found between the concentrations of HCE or OCD in the subcutaneous fat and either milk or blood at any stage of the experiment. At slaughter, from 18 to 24 months after the commencement of the experiments, significant correlations ($P < 0.05$) were found among concentrations of HCE and OCD in subcutaneous fat, renal fat and fat from the bone marrow. Concentrations were significantly higher ($P < 0.05$) in bone marrow than in either subcutaneous or renal fat.
Aust Vet J **65:** 50-53

Specificity of the anti-inflammatory effect of a staphylococcal cell wall extract in the bovine udder

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SUMMARY: The cell wall of *Staphylococcus aureus* (strains 21 and Glaxo) was treated with deoxycholate and the insoluble residue was solubilised with lysozyme. The effect of the extract in modulating the inflammatory response due to infection of the lactating bovine udder was evaluated. Cows were infected with *S. aureus* strain 21 or *Streptococcus agalactiae,* with or without the cell wall extracts. The clinical response to infection was assessed, and milk samples collected up to 30 h were assayed for antitrypsin and NAGase levels, somatic cell count, and for the ability of whey to support bacterial growth. The extracts markedly reduced the inflammatory response elicited by both *S. aureus* and *S. agalactiae,* indicating the effect was non-specific. The extract from strain 21 was generally more effective than that from strain Glaxo.
Aust Vet J **65:** 110-114.

Uterine torsion followed by jejunal incarceration in a partially everted urinary bladder of a cow

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SUMMARY: A case of bladder eversion with intestinal entrapment in a cow is described. The condition occurred in conjunction with a 180° right side uterine torsion. The cow responded well to corrective surgery.
Aust Vet J **65:** 24-25

Bovine leptospirosis: Microbiological and histological findings in cattle at slaughter

N W SKILBECK , W M FORSYTH and M DOHNT

SUMMARY: Kidneys from cattle at slaughter wee examined for the presence of leptospires. Of 218 (8.3%) kidneys leptospires were isolated from 18; all were identified as *Leptospira interrogans* serovar *hardjo*. None of the leptospire-infected kidneys had histopathological lesions indicative of leptospirosis and leptospires were demonstrated in only 2 by immunogold silver staining.

Leptospires in fected kidneys remained viable for at least 21 days when stored at 4° but became non-viable within 14 days when stored frozen at -15°.
Aust Vet J **65**: 73-75.

Calving rates of Brahman and Brahman-cross cows to fixed-time insemination after treatment with pregnant mare serum gonadotrophin and intravaginal progesterone

R K MUNRO

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SUMMARY: In 2 experiments involving 151 non-lactating and 107 lactating Brahman or Brahman-cross cows, the effects of progesterone treatments (PRID) of 2 durations (7 v 14 days) and injections of pregnant mare serum gonadotrophin (PMSG) at 3 doses (O v 375 v 750 IU) were examined. All cows were inseminated with frozen/thawed semen 54 to 58 and 70 to 74 hours after PRID removal. Calving rates of non-lactating cows (38%) were unaffected by breed or treatment but were higher in previously cyclic than acyclic cows (44% v 19%, $P < 0.025$) and in cows which exhibited oestrus after treatment (52% v 23%, $P < 0.001$). Calving rates of lactating cows were not affected by these factors but were affected by treatment; PMSG produced no significant effect after a 7-day PRID treatment (33% overall) but increased calving rates after 14-day PRID treatments (22% v 46% v 37% for 0, 375 and 750 IU respectively, $P < 0.10$).

Comparisons of calving rates of lactating cows treated with 14-day PRID and PMSG and artificially inseminated, and untreated naturally mated cows, showed that treatment significantly increased the proportion of cows conceiving in the first 35 days of the mating period (50% v 23%, $P < 0.025$). The results show that treatment with PRID for 14 days and PMSG can overcome post-partum anoestrus in lactating Brahman and Brahman-cross cows leading to significant reductions in the calving to conception interval.
Aust Vet J **65**: 21-23

Inherited progressive spinal myelinopathy in Murray Grey cattle

JR EDWARDS , RB RICHARDS and MJ CARRICK

SUMMARY: In a breeding experiment conducted to determine the mode of inheritance of progressive spinal myelinopathy, semen from a Murray Grey bull which had previously sired affected calves was used to inseminate 120 cows. Female progeny were then inseminated with semen from the same bull. Of the 51 calves born, six (11.8%) had spinal cord lesions consistent with progressive spinal myelinopathy.

From analysis of pedigrees and the results of the breeding experiment it was concluded that the condition was inherited as an autosomal recessive condition in Murray Grey cattle.
Aust Vet J **65**: 108,109.