

THE SIR ARTHUR WARD AWARD 1986

M. W. COOPER

There are three major components to a successful artificial breeding service. Firstly is the requirement for accurate identification of genetically superior sires; secondly, methods of collecting, processing and storing semen to enable large numbers of inseminations to be made per bull with a high conception rate; and thirdly, the development and application of insemination techniques which enable technicians in the field to inseminate large numbers of cows and obtain high conception rates.

In the development of artificial breeding in New Zealand a number of people have made contributions to each of these areas. This Society has previously honoured Candy, Ward, Castle, James and Shannon for their contributions by the conferment of Honorary Life membership or, in the latter instance, the McMeekan Memorial Award.

The Society's Sir Arthur Ward Award recognises those who have made outstanding contributions to the practical implementation of animal production in New Zealand. Maxwell William Cooper, ranks alongside those previously recognised by the Society for his work in developing techniques and field systems that have made it possible for New Zealand to become a world leader in the artificial breeding field.

In 1949 the first commercial artificial insemination groups, as they were then known, were launched in Taranaki, and in the Waikato. This followed 10 years of research work by James and others at Ruakura developing techniques suitable for field application. Max Cooper answered an advertisement for staff to train as inseminators, and was given a group of 20 herds and over 800 cows in the Horsham Downs-Rototuna area to service. His father ran a town supply herd close to Ruakura and some of the earlier experimental work had been done with his herd. Max's enthusiasm had been kindled by what he had seen on the home farm.

Max was trained by John James and Stan Southcombe and was quite literally thrown into the field at the deep end. He was trained on a celluloid tubing straw, now plastic, with a chromium plated gun, now a pistolette. When he went, 7 days a week, picking up his supply of semen from Ruakura and proceeding around the 40-odd mile journey to cover his farms, he was faced with an immediate conversion to glass pipettes. Breakages were high and Max wondered whether some of the resultant calves might not be born with glass eyes.

Although artificial insemination was accepted by farmers as an experimental technique, attitudes towards it varied from the curious to the hostile. The farmers

wondered what sort of calves would result from the artificial matings. Would they be normal? Some would let the cow be served by a bull before and after insemination, in case the semen affected anything. One concerned lady in Horsham Downs was so appalled at what she found was going on that she stopped Max on his run one day and told him that it was a very dirty practice. God had meant the bull to do the job—not a human. She offered to make up his wages if he stopped forthwith. His explanations that he was using bull semen and that his personal welfare was not at risk did not really placate the highly religious lady who continued to maintain that he was carrying out an unethical act.

Following his initiation into artificial breeding Max was given the responsibility of developing improved field equipment, shed techniques and procedures for use in commercial artificial breeding. As interest in using the technique grew Max was required to set up training schedules on Hamilton town supply herds. He soon transferred to Papakura to get access to enough cows in the town supply herds in that area. He became responsible for teaching instructors, and examining technicians at the end of their training course.

Technicians were trained "bare-handed" with glass, a more difficult technique than today. But the people were enthusiastic to learn and failure rates were consequently low, and the turnover rate of technicians was lower than it is today.

In examining technicians, Max had to take each out for a day and check his technique. He looked carefully at an individual's ability to inseminate, and his approach to the job, as a basis for accrediting him as a group operator. Some who were keen to succeed surreptitiously tried to influence the decision—Max was confidently able to drink their offered beverage whether they passed or not.

He was still inseminating cows in his own group until the 1954 mating season. In addition, he was involved in laboratory work, mainly semen collection and processing. He trained the first two female technicians in 1952. One lasted two weeks in the field because she assaulted a farmer. The other is still inseminating cows in England—and is still single.

As the extent of artificial breeding grew Max had to drop his own insemination round and become committed to the laboratory. For 7 days a week he started at 3.30 am carrying out up to 140 collections per morning. By the end of the 1950's each Herd Improvement Association instigated its own training system and Max's role was that of national examiner,

personally examining 2 to 4 technicians a day. He often flew his own aircraft to carry out those examinations. Initially it was a Tiger Moth which often saw him arrive half frozen at his destination. Trips to Northland were cherished but often resulted in low level flying back to Hamilton due to the overloading with toheroas. Later he graduated to a Cessna. One that he flew had the appropriate registration Charlie Oscar Whisky (COW) and, on one trip in that aeroplane he had 1500 ampoules to ferry to North Auckland.

In the 1960s the new Livestock Improvement Associations each appointed its own examiners and Max has had a national role as technician training supervisor since then.

Max is the first person that questions of artificial insemination technique are referred to for any farm species. He has worked with them all. The first litter that resulted from artificial insemination of a sow had 17 piglets—there was a big shortage of teats. Japanese experts heard about this achievement and, as they had only been able to produce small litters, came to New Zealand specifically to see how he had done it.

Max has always been a deerstalker. One of his team-mates on the rugby field and opponents in athletics was Evan Meredith who spent some time deer culling. Evan's and Max acquaintance and interest were rejoined in 1980 at Te Anau when they collected semen from a Wapiti bull, processed and froze it and later put it into two Wapiti cows. Two calves resulted. The next year Canadian elk semen was obtained and 18 cows mated at a synchronised oestrus with 6 calves resulting. This work pioneered the potential of artificial breeding in New Zealand farmed deer. Other species with which Max has had experience include beef cattle, sheep, goats and even dogs.

Outside his work Max has participated fully in many sports. He was the holder of several Waikato titles and records over the hurdles and, in 1960, ended his career at one of the then popular Agfa track series meetings by finishing last but within a few feet of the overseas winner of the 100 metres hurdles. His interest in athletics has been maintained and he has attended three Olympics Games and six Commonwealth Games since 1968 with responsibility for photofinish equipment. He was prominent as an indoor basketballer and a gymnast, and in each sport his Waikato team captured national titles.

Max Cooper's career has spanned the nearly 40 years over which major developments have taken place within the New Zealand Dairy Board's artificial breeding service. Initially farms supplied cream. There was no tanker track access and many gates to open. This problem was overcome either by carrying a passenger, or by bribing the local children at the price of a blackball per gate. Technicians often recruited nurses who were keen to learn something about this artificial insemination business. They were able to take records, fill pipettes and assist with other aspects of the job.

Recruits were readily available but one farmer would not agree to his own daughter going on a run as he had seen inseminators in action.

Max introduced farmers to displaying a disc on their shed if they had cows to be serviced. He had a standing wager with several that should no cows be in season he would receive a bottle of beer. On many Sundays the round was a long one as those who had come to appreciate his visits and his skills made sure that they shared a drink with him when he called.

Max admits to having committed the classic sin on one farm. The farmer lined up several cows and diverted Max's concentration until he commenced to operate on the steer that had been included in the line-up. That farmer dined out for years at Max's expense.

In addition to training technicians in New Zealand, Max has travelled widely overseas both to promote our technical expertise in artificial insemination and to assist other countries. Many trainees have come to New Zealand for experience following his visits to Korea, Nepal, and on nearly 20 occasions to Indonesia. In that country he established the artificial breeding centre at Lambang, a centre which last year processed nearly 300 000 doses of semen. He has also studied new techniques overseas in England, France, Germany and the USA.

There is no major aspect of artificial insemination of dairy cattle in which Max Cooper has not played an important role, particularly in implementing new field developments. That the New Zealand Dairy Board's service has measured up so well with well trained technicians who obtain high conception rates is a tribute to Max Cooper's own skills and to his ability to train others. He has demonstrated this over a period when technology has changed dramatically—lower doses of semen, storage for longer periods, greater pressure on trainees for accuracy and skill, accent on speed and efficiency, and the pressure to get top results in bigger herds have all been reflected in the development of more effective training programmes by Max.

The successful development of artificial breeding in dairy cattle in New Zealand is a result of the work of many people. But it is doubtful whether the practical development and application of new techniques would have progressed to the point where our service has such a high international reputation without Max Cooper's contribution. Our farmers have benefited enormously from his efforts over a period of nearly 40 years. The New Zealand Society of Animal Production recognises his unique contribution to animal production in New Zealand by conferring on Maxwell William Cooper the Sir Arthur Ward Award for 1986.

K.E. Jury and R.L. Baker