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What is Animal Welfare?

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When my father was a student at the Ontario Agricultural College in the 1930's, he studied "animal husbandry". The course taught students how to care for animals through a combination of practical skills, health measures, and whatever science was available at the time.

Since then, animal husbandry has become "animal science", and tremendous progress has been made through specialized research in the fields of nutrition, physiology, and genetics. But as the science became more and more specialized, some important things seemed to fall between the chairs. Where, in all the amino acids and estrogens and selection indices, was the animal care?

The study of animal welfare tries to fill that gap, and it grew out of three developments.

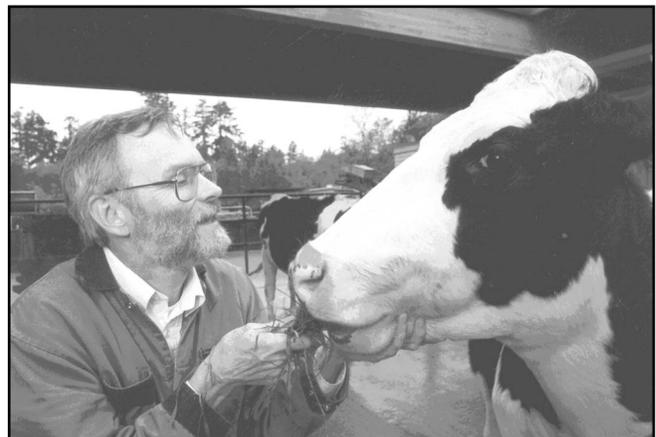
First was the development of "ethology", the scientific study of animal behaviour, which grew into a distinct field of biology in the first half of the 20th Century. Ethology laid the groundwork for the research methods we use today in studying the behaviour of farm animals.

Second was the change in farm animal environments, beginning especially in the 1950's and 60's when we saw new housing systems rapidly replace types of housing that had been used for centuries.

Within a few decades, most farm animals came to live entirely in human-designed environments. In some cases these environments gave rise to

behavioural problems like tail-biting, feather-pecking, and cross-sucking. Other behavioural questions arose: how to overcome problems of social dominance, how to design free-stalls to optimize resting times, how to move animals efficiently. These issues led to increased calls for research on farm animal behaviour.

The third development was the growing public concern about animal agriculture, beginning in the 1960's and coming from an increasingly urbanized population who were worried that the new, indoor production environments were not well suited for the animals. The debate continues, of course, but producers and critics alike seemed to agree that research on topics such as behavioural problems, injuries, and stress responses could help keep animals happier, and at the same time solve some of the production problems of confinement agriculture.



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These three developments led to what we now call “animal welfare science”. The field deals with animal behaviour and with problems that arise in human-designed environments. And in addition to solving practical problems, it also helps the industry respond constructively to criticism over animal rearing methods.

The studies underway by UBC’s Animal Welfare Program, some of which have been highlighted in recent Research Reports, illustrate the wide range of topics covered in animal welfare research. Erin Bell, a M.Sc. student from Vernon, is doing a survey of hoof injuries in herds in the Fraser Valley in order to find out how different aspects of the barn environment contribute to this problem (Vol 2, No 2). Frances Flower, a Ph.D. student from England, is using a computerized analysis of how cows walk to find improved methods of detecting lameness. Cassandra Tucker, a Ph.D. student from the United States, completed a project on the effects of tail-docking on cow cleanliness and udder health (she found no evidence of any benefit from this practice; Vol 1, No 2), and is now doing research on improving stall design for cow comfort (Vol 2, No 5). Various students, such as Christine Brenninkmeyer, a M.Sc. student from Germany, have looked at alternative practices for calf rearing such as improved feeding practices (Vol 2, No 4). In each of these studies the aim is to provide solutions that producers can implement on their farms.

Up to a point, animal welfare science is a lot like conventional animal production research, but covering the topics of behaviour, housing, and management. There is, however, one important difference. Animal production research sees production efficiency as the main goal, and uses knowledge about animals to achieve it. In animal welfare research, the primary goal is to better understand and meet the needs of the animals themselves, and thereby, indirectly, improve productivity.

Perhaps this is why animal welfare research is funded by individual donors and public organizations as well as animal producers. For UBC’s Animal Welfare Program, the main funding comes from the BC SPCA, the BC Veterinary Medical Association, and the cattle industry. This funding is matched by the federal government through its Natural Sciences and Engineering Research Council. The Program’s advisory committee includes the same interests: producers, veterinarians, and members of the BC SPCA. We hope that by focusing first and foremost on the animals, we can provide benefits to all groups who are involved in animal care.



The UBC Dairy Centre at Agassiz