

ABSTRACTS
*** Author Presenting Paper**

17 2020 Vision? - The future of dairy cattle breeding from an academic perspective. P.J. Boettcher*, *University of Guelph, Guelph, Ontario, Canada.*

In the future, all aspects of dairy cattle breeding will continue to be shaped by trends in the industry that have been occurring for the past generation. Dairy farms will continue to increase in size and decrease in number. Advancement will continue in the development and adoption of computers, genomics, and other technologies, and the dairy cattle breeding industry will continue to become more global in its scale. These factors will both directly and indirectly affect the research and teaching activities of those who chose to follow a career path similar to Gene Freeman's. A major consequence of these factors is that as farm sizes increase and the proportion of the public directly involved in dairy production decreases, the public need and support for teaching and research in dairy cattle breeding are also likely to dwindle. Family farms will likely be increasingly viewed as businesses and asked to directly support a greater portion of their research and development activities. Nevertheless, the public will still influence research priorities. Health and well being of cattle and genetic diversity will likely become more important as consumers react to concerns about food safety and animal welfare. These factors will also be of direct concern to breeders, because they influence profit by affecting costs of production. Producers will put increased value on trouble-free cattle that demand less individual attention. Computers and automated equipment will allow data for health and functional traits to be captured efficiently, which will be necessary before either traditional or genomics based selection tools can be applied. New technology resulting from research will be transferred to the field and applied more quickly. Graduate students will require a very diverse training. Although graduates will probably work in very specialized fields (and probably not in academics) and perform relatively specialized tasks, they will likely be doing so as members of larger teams. The ability to interact and communicate with their collaborators, as well as breeders, industry representatives and the general public, will be paramount.