ABSTRACTS * Author Presenting Paper

23 Past, present, and future perspectives of small ruminant dairy research. G.F.W. Haenlein*, *University of Delaware, Newark*.

The objectives of this paper are to review small ruminant dairy research in relation to the dimensions of the dairy goat and dairy sheep industries in USA and the world. At least 10 countries depend between 30 - 76% of total milk supply on goats and sheep. Leading is Greece producing $178~\mathrm{kg}$ milk/person/yr with 61% from sheep and goats. Most developing countries need research, extension service and public support to improve productivity of goats and sheep, as their supply from all milk is <100 kg/person/yr, and annual yields average <100 kg milk/goat, <50 kg milk/ewe, making supplies of animal protein and calcium critically low. Statistical data on goat and sheep production for USA are not available, although the small population of DHIA tested US dairy goats averaged in recent years >700 kg milk/goat/yr; and some dairy sheep breeds may produce as much as 650 kg/yr. The need for more milk appears to be reflected in the dramatic increases of dairy goat populations during the last 20 years: 52% for the world, 56% for developing, 17% for developed countries, while sheep populations decreased by 3% for the world, by 6% in developed, but increasing by 14% in developing countries. Research has been sparse on the unique qualities of goat and ewe milk compared to cow milk. Much development work by various agencies has been devoted to reducing mortality and improving feed supplies in harmony with the environment, published mostly in various proceedings of scientific meetings, often not in English. Results have shown in many cases that dairy goats can be very profitable, even in developing countries with difficult climate and topographical conditions.

 $\mbox{\sc Key Words:}$ Dairy Goats, Dairy Sheep, Small Ruminant Dairy Research