

## **Ron MacDonald, P.Eng., Agricultural Engineering, President**

Ron MacDonald is a registered Professional Agricultural Engineer in Ontario, Manitoba and Saskatchewan. Before establishing Agviro Inc., Ron was employed with Ontario Hydro, providing engineering services and R&D to agricultural clients on energy efficient ventilation, heating, refrigeration and lighting systems.

Prior to this he provided engineering services to agricultural clients with the Ontario Ministry of Agriculture and Food (OMAF) as an Extension Engineer. Initially with the OMAF Energy Centre at the University of Guelph, Ron conducted R&D in energy efficient technologies and alternative fuels/energy sources for agriculture. Ron is an active member of the Professional Engineers Ontario, Canadian Society of Agricultural Engineers, American Society of Agricultural Engineers, Canadian Farm Builders Association, and the Ontario Pork Congress Innovators Committee.

### **SELECTED PROJECTS**

RESEARCHED AND PRODUCED over 40 scientific, technical and information papers on agriculture and energy efficiency. Produced articles on agricultural production efficiency for agricultural magazines and newspapers; provided media with technical information and interviews. Consulted and referenced worldwide.

DESIGNED, DEVELOPED AND PRESENTED a training manual for contractors and sales people on lighting design and economic evaluation. Won an Award of Excellence at an international competition in the Education category. Developed design criteria for energy efficient technologies.

DESIGNED and CO-WROTE an economic evaluation software program and documentation (LiteCal) for use by lighting contractors, wholesalers and customers.

DESIGNED ENVIRONMENTAL CONTROL AND LIGHTING SYSTEMS for over 300 farms, improving their profitability and management.

DESIGNED COMPLETE SPECIFICATIONS AND PLANS for many large scale livestock and poultry operations throughout North America.

DESIGNED, DEVELOPED and PRESENTED a TRAINING MANUAL for a utility company on grain drying and conditioning, psychographics, greenhouse heating, animal husbandry and livestock/poultry HVAC systems.

DESIGNED and CO-WROTE HEAT LOSS ANALYSIS and HEATING SYSTEMS ECONOMICS software and documentation. Program is used throughout North America.

DEVELOPED NEW HEATING SYSTEM TECHNOLOGY for use in segregated early weaning (SEW) nursery facilities in conjunction with a large US integrator and manufacturer.

PROVIDE LEADING EDGE MONITORING systems on indoor air quality and energy use efficiency for industrial, commercial and agricultural applications.