

Xiuming Hao

Dr. Xiuming Hao is a senior research scientist with Agriculture and Agri-Food Canada (AAFC) at Harrow Research and Development Centre in Harrow, Ontario. He holds a PhD in plant physiology from University of Guelph and an MSc in computer control systems from Wayne State University. Dr. Hao has been involved in the greenhouse research at the research centre since 1995. The focus of his research program is on greenhouse environmental physiology and energy efficiency. In the last 18 years, he has conducted numerous controlled environment agriculture (CEA) projects on crop management, climate control, and energy conservation, including high-wire cucumber production systems, new greenhouse insulation technology, heat placement in greenhouse vegetable production on raised-troughs, and dynamic temperature, CO₂, humidity and fertigation control strategies, and new greenhouse cover materials. Dr. Hao has led the AAFC national research project on dynamic plant-based environment control to improve energy use efficiency in greenhouse vegetable production. He has conducted extensive research and is leading the national AAFC lighting projects on leafy greens and greenhouse vegetables to improve light and energy use efficiencies in year-round greenhouse vegetable production with the use of high-pressure sodium lamps, LEDs and other new light sources.