In the late 1980’s the Manitoba Naturalists Society discovered remnants of native tall grass prairie in south-eastern Manitoba. This discovery has led to the development of the largest tall grass prairie preserve in Canada and one of the largest in North America. The Manitoba Tall Grass Prairie Preserve has progressed through the initial survey stage into an era of prairie management. Originally settled by agriculturalists in the late 1880’s, the land was too stoney and poorly drained for intensive agriculture. The land was used for pasture and hayland for many years and finally abandoned. Invasive native species such as aspen, willow and several other woody species as well as the introduction of exotic grasses and forbs have made management a formidable challenge. The discovery of noxious weeds such as Leafy Spurge and St. John’s Wort has exasperated the management problem. An integrated vegetation management system has been adopted to combat these challenges. The effectiveness of limited herbicide use, mechanical removal and the use of biocontrol agents such as Lobesia euphorbiana, Aphathona cyparissiae and A. nigriscutis are currently being monitored on the control of Leafy Spurge while other options are being considered.