Economics of using sheep to control leafy spurge

DEAN A. BANGSUND, DAN J. NUDELL, and F. LARRY LEISTRITZ

Abstract:

Analysis of the economic feasibility of using a multi-species grazing program to control leafy spurge was based on adding a sheep enterprise to an existing ranch or leasing sheep during the grazing season. Several sheep enterprise budgets were developed for different flock size, performance, and financial characteristics. Fencing expenses were estimated for adding wire to an existing fence or for constructing new fence.

Treatment costs included fencing expenses and net returns from a sheep enterprise (which could be positive or negative) or expenses from leasing sheep. Returns from control included recouping lost grazing outputs (for cattle) from within the infestation and maintaining existing grazing capacity by preventing current infestations from expanding. Rangeland with 0.2 to 0.8 AUMs/acre stocking rates was evaluated.

When flock performance (e.g., lambing rate, weaning weight) was equal to that of established sheep producers (best case scenario) over a ten-year period, treatment benefits greatly exceeded costs in all situations. When flock performance was equal to that of unassisted lambing flocks (worst case scenario), treatment benefits generally exceeded costs only on more productive rangeland (0.7 AUMs/acre or greater). However, in most of those situations, a multi-species grazing program resulted in less economic loss than not controlling the infestation. The majority of ranchers adopting a sheep enterprise will likely be somewhere in between these two scenarios. A lease rate of $1 per head per month was economical in many of the control situations, but lease rates of $2 per head per month would not be recommended.

Probably the biggest factor influencing the economics of control was enterprise returns. Since numerous factors can affect the net returns for a sheep enterprise, a careful evaluation using site- and rancher-specific inputs would be recommended before implementing sheep grazing as a leafy spurge control method.