



An Internet-Available System for Estimating Site-Specific Invasive Weed Impacts

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It is critical for managers to understand the severity weed impacts before trying to control large infestations. If weeds are having major negative impacts, then costly management (e.g. herbicides, seeding) may be warranted. On the other hand, if weed impacts are less severe, then the costs and risks of management may not be warranted. An ability to quantify weed impacts would help managers make effective weed management decisions. I have developed an internet-available model that estimates spotted knapweed and leafy spurge impacts. The model formalizes weed impacts as a multiplicative function of weed abundance and weed impact per unit abundance. The model requires weed data from the rangeland site of interest. A sampling frame is randomly deposited about the site and weed density data are collected. The data can typically be gathered in about half an hour. The data are input into a form on a website, and the website does calculations and presents weed impact estimates. Specifically, the website estimates percent reductions in desired species caused by weeds. Also, the website uses example calculations to show users how to translate reductions in desired species into reductions in livestock carrying capacity. The web address is <http://199.133.173.229/WeedImpact/>, or one can simply follow the link on the first page of the Fort Keogh website. To get a clearer sense for the workings of the website, interested parties are encouraged to enter fake data. Becoming familiar with the website takes only a few minutes.

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