

Controlling Snowberry Bush on Pasture Land

Background:

Upon inspection of an IKONOS image a Montana rancher noticed dense vegetation in an area of pasture that should have had very little vegetation as late in the season as the imagery was acquired. Further inspection of the area confirmed that the vegetation was weed growth, including snowberry bush. Because of the rocky terrain, a ground control program would not be feasible. After weighing his options he decided it would be most beneficial to purchase an ultralight aircraft and spray the field himself rather than contract a spraying company.

Use of Data:

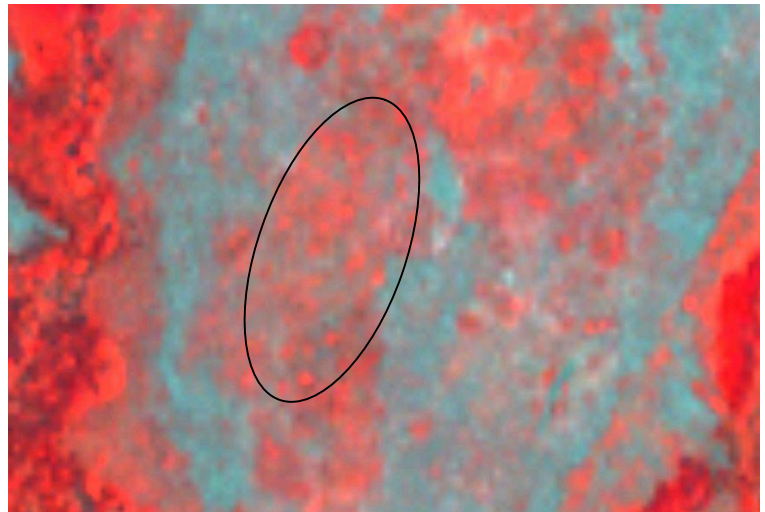
By using the 2001 IKONOS imagery the rancher was able to locate a 10 acre control area for test spraying. Before his 2002 IKONOS image was acquired, he sprayed the area of weeds shown in the 2001 image in the early spring of 2002. Using his power parachute equipped with a broad-jet spraying system he applied 1 gallon per acre. The swaths that were sprayed are apparent in the 2002 IKONOS image and prove the effectiveness of the actions taken. He stated, "The value of the satellite photos is very obvious in this project. Without access, it would be very difficult to measure the progress of the spraying. The images are also invaluable for determining where to spray next."

Economic and Environmental Benefits:

Estimations of land values were at \$200 per acre, so 20 gallons should recover \$4000 worth of pasture. Deducting the cost of spraying of \$10 per acre brings a net value of \$3800. In time the rancher will start making up for the costs of the sprayer equipment and begin to realize a profit from his operations. In addition, eradicating the snowberry bush increases the quality of the pasture for cattle grazing.

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2001 IKONOS Image



2002 IKONOS Image

