

EFFECT OF FLAMING TIME ON WEED CONTROL. Erin Taylor, Research Associate, Department of Crop and Soil Sciences, Michigan State University, East Lansing, MI 48824-1325.

High relative humidity or the presence of dew are thought to buffer the intensity of heat reaching the leaf surface of weeds during flaming and thus reduce the level of control. We measured the effectiveness of flaming at four different times throughout the day (8 a.m., noon, 4 p.m., and 8 p.m.) at two sites in 2007 and one site in 2008. In general, air temperature was the lowest and relative humidity was the highest at the 8 a.m. treatment time. Broadleaf and grass weed heights at the time of flaming ranged from 0.4 to 3.8 cm and 0.4 to 8.9 cm, respectively. Weed counts were taken in permanent quadrats before and five days after flaming. Flaming reduced broadleaf, but not grassy weed populations in all three site years. At both sites in 2007, broadleaf weed control was reduced at the 8 p.m. treatment time (average 44% control) compared with the other three treatment times (average 89% control). In 2008, there were no differences in broadleaf weed control among treatment timings. The differences in broadleaf weed control among flaming times in 2007 could not be explained by differences in temperature, relative humidity, or the presence/absence of dew.