

Appendix 1. Description of treatments used to evaluate the influence of forest herbicides on the reproductive output of House Wrens.

Trees were planted at a density of 1100 trees/ha in early spring 2011 on all stands. Prior to planting (2010), stands in the moderate and intensive herbicide treatments received site preparation treatment (i.e. broadleaf vegetation spray) that consisted of 0.10 kg ha⁻¹ Escort (DuPont, Wilmington, Delaware; active ingredient (a.i.) 60 percent metsulfuron methyl), 7.01 L ha⁻¹ Accord (Dow AgroSciences LLC, Indianapolis, Indiana; a.i. 41.5 percent glyphosate), 1.75 L ha⁻¹ Chopper (BASF Corporation, Florham Park, New Jersey; a.i. 27.6 percent imazapyr), 0.21 kg ha⁻¹ Oust (DuPont, Wilmington, DE; a.i. 75 percent sulfometuron methyl), and 1.75 L ha⁻¹ MSO (methylated seed oil, as surfactant) applied aerially via helicopter. Following planting, a spring herbaceous release spray was applied to stands in the light, moderate and intensive herbicide treatments which consisted of 2.98 kg ha⁻¹ Velpar (DuPont, Wilmington, DE; a.i. 75 percent hexazinone), and 2.24 kg ha⁻¹ 2,4-D (Dow AgroSciences LLC, Indianapolis, IN; a.i. 97.5 percent 2,4-dichlorophenoxy acetic acid) applied aerially via helicopter or with ground-based backpack sprayers. Control stands did not undergo site preparation nor were they treated with herbicides (i.e. either spring herbaceous spray or broadleaf release) at any time during the course of this study.

In the second and third year after planting (2012 and 2013), stands in the intensive herbicide treatment received a spring herbaceous release spray that consisted of 0.14 kg ha⁻¹ Oust XP (DuPont, Wilmington, DE; a.i. 75 percent sulfometuron methyl), 0.42 kg ha⁻¹ Transline (Dow AgroSciences LLC, Indianapolis, IN; a.i. 40.9 percent clopyralid), and 1.49 kg ha⁻¹ Velpar

(DuPont, Wilmington, DE; a.i. 75 percent hexazinone) applied aerially via helicopter or with ground-based backpack sprayers. Finally, a broadleaf release spray was applied to stands in the light (2012 only) and intensive herbicide treatments (2012, and as needed in 2014) that consisted of 2.63 L ha⁻¹ Accord (Dow AgroSciences LLC, Indianapolis, Indiana; a.i. 41.5 percent glyphosate) and 1.46 L ha⁻¹ Garlon 4 (7.01 L ha⁻¹ Accord (Dow AgroSciences LLC, Indianapolis, Indiana; a.i. 60.5 percent triclopyr) applied aerially via helicopter or with ground-based backpack sprayers.