

Table 1. Potential herbicides and tank mixes for herbaceous chemical release of pine.

PINE SPECIES Crop Tree	INDIVIDUAL CHEMICAL ¹ or Tank Mix	HERBICIDE TRADE NAMES	APPLICATION RATES ² (minimum rate - course, sandy soils)	APPLICATION RATES (Maximum rate - fine, silty clay soils)	STAND AGE ^{3,4} (time after planting)	APPLICATION TIMING
Loblolly & Slash	Imazapyr⁵ Sulfometuron-methyl ⁶	Arsenal AC[®], Polaris AC[®], Imazapyr 4SL[®] Oust XP [®] , SFM 75 [®] , Spyder [®]	4 ounces (per acre) 2 ounces (per acre)	6 - 8 ounces per acre 4 ounces (per acre)	1 month - 3 years	early growing season (March-April)
	Hexazinone⁷ (use one of the three in bold font)	Velpar[®]L,	4 pints 5 pints	6 pints 8 pints	1st year trees established trees	post-emergent (spring - prior to conifer bud break/leaf expansion)
		Velpar[®]DF	1.33 lbs 1.66 lbs	2 lbs 2.66 lbs	1st year trees established trees	
		Velossa[®]	3.33 pints 3.33 pints	5 pints 6.66 pints	1st year trees established trees	
	+sulfometuron-methyl	Oust XP [®] , SFM 75 [®] , Spyder [®]	1.6 oz.	3 oz.		
	Pre-mixed Hexazinone + sulfometuron-methyl	Oustar[®]	10 oz. 12 oz.	19 oz. 24 oz.	1st year trees established trees	pre-emergent; early post - emergent
	Imazapyr metsulfuron-methyl	Arsenal AC[®], Polaris AC[®], Imazapyr 4SL[®] Escort XP [®] , MSM 60 [®]	4 oz. 1/2 oz.	6 - 8 oz 1 oz	1 month - 3 years	late growing season (after July 15)
	Pre-mixed Imazapyr + metsulfuron-methyl	Lineage[®], Clearstand[®]	9 oz.	16 oz	1st year - loblolly 2 - 5 years (other pine)	late growing season
	Hexazinone metsulfuron-methyl	Velpar[®] products or Velossa[®] Escort XP [®] , MSM 60 [®]	see rates above 1/2 oz	see rates above 1 oz.	1 month - 3 years	same as previously mentioned
	Imazapyr sulfometuron + metsulfuron	same products as above Oust Extra, Spyder Extra, SFM Extra	4 oz 2 oz.	6 - 8 oz 4 oz.	1 month - 3 years	early growing season
Clopyralid	Transline [®] , Clean Slate [®] , Sonora [®]	4 oz.	21 oz.	1 month - 3 years	late growing season	
fluroxypyr	Vista XRT [®] , Flagstaff [®]	6 oz	23 oz	1 month - 3 years	early post emergence (when weeds are growing but less than 6" tall)	
Indaziflam (may be mixed with most above - refer to label)	Espalante F [®]	3.5 oz.	7 oz.	1 month - 3 years	pre-emergent (February - March; prior to weed germination)	
Longleaf	All of the above herbicides can be used at the lower rates for herbaceous release except herbicides containing metsulfuron-methyl				allow at least 2 months to pass after planting	follow timings above for particular herbicides
	Imazapyr	same products as above	4 oz	6 oz.	2 months - 3 years	early growing season
	Aminopyralid	Milestone[®]	4 oz.	7 oz.	(March - April) 2 months	early post emergence (when weeds are growing but less than 6" tall)
	Hexazinone⁸	same products as above	same as for loblolly	same as for loblolly	same as for loblolly	same as for loblolly