

## Calibrations

<b>Active Ingredients (ai)</b>	
<b>lbs commercial material/acre</b> = [lbs ai to be applied per acre] / [% ai of material]	<b>gal commercial material/acre</b> = [lbs ai to be applied per acre] / [lbs ai per gallon]
<b>gal commercial material/tank</b> = [gallons per tank x lb ai to be applied per acre] / [gallons/acre x lbs ai per gallon]	

<b>Pesticide Calibration Formulas and Information</b>	
<b>Gallons Per Acre (GPA):</b> = [GPM x 495] / [MPH x Swath (ft)] = [GPM per nozzle x 495] / [MPH x nozzle spacing (ft)] = [GPM per nozzle x 5940] / [MPH x nozzle spacing (inches)] = [fl.oz. collected per nozzle x 4084] / [ft. traveled x nozzle spacing (inches)] = [fl.oz. collected per nozzle in 100 ft x 40.8375] / [nozzle spacing (inches)] = [gallons per 1000 sq.ft.] / 0.023 = [gallons collected per nozzle x number of nozzles x 43560] / [ft. traveled x Swath (ft)]	
<b>Gallons per 1000 sq.ft.</b> = 0.023 x GPA	<b>Ounces per 1000 sq.ft.</b> = 2.94 x GPA
<b>Gallons Per Minute (GPM)</b> = [GPA x MPH x Swath (ft)] / 495 = [fl.oz. per minute] / 128 = [GPA x MPH x nozzle spacing (inches) x no. nozzles] / 5940	<b>GPM / Nozzle</b> = [GPA x MPH x nozzle spacing (inches)] / 5940 = [GPA x MPH x nozzle spacing (ft)] / 495 = [Test jar fl.oz. x 0.46875] / [seconds to fill test jar] = 7.5 / [seconds to fill 1 pint (16 fl.oz.)] = 15 / [seconds to fill 1 quart (32 fl.oz.)]
<b>Minutes/Acre</b> = 495 / [MPH x Swath (ft)]	<b>Minutes/Load</b> = [gallons/load x 495] / [MPH x GPA x Swath (ft)]
<b>Travel Speed (MPH)</b> = [Distance traveled (ft) x 0.68] / [time (seconds) to travel distance]	<b>Acres covered per tank</b> = [Gallons per tank] / [GPA]
<b>Material needed per tank</b> = [rate/A x gallons/tank] / [GPA]	<b>Acres covered/hour:</b> = MPH x Swath (ft) x 0.1212 or [MPH x Swath (ft)]/[8.25]

<b>Time (seconds) required to cover a specific distance to obtain a desired speed (MPH)</b>				
Desired MPH	Feet per minute	Time Required (Seconds) to Travel a Distance of		
		100 ft.	200 ft.	300 ft.
2	176	34	68	102
2.5	220	27	54	81
3	264	23	45	68
3.5	308	20	39	58
4	352	17	33	51
4.5	395	15	30	45
5	440	14	27	41
6	528	--	23	34
7	616	--	19	29
8	704	--	17	26
9	792	--	15	23

For Other Calibration Charts & Tables Visit [www.GeorgiaTurf.com](http://www.GeorgiaTurf.com) & Follow the Link to Pest Control