

## Sparging Water Acidification Calculator

INPUTS			
Starting Water Alkalinity =	119	ppm as CaCO <sub>3</sub>	
Starting Water pH =	7.7	Standard Units	
Type of Dilution Water Used	Distilled Water		
Percent Dilution Water	50	percent	
Diluted Water Alkalinity	59	ppm as CaCO <sub>3</sub>	
Diluted Water pH	7.1	Standard Units	
Set the Target Water pH =	5.9	Standard Units	
Water Volume to Treat=	6.00	Gallons	Input 1.0 for the volume to have the
First Acid Type =	Lactic	▼	Acid type used in sparging water
First Acid Strength =	88	%	▼
Second Acid Percentage	0	percent	
	Phosphoric	▼	Acid type used in sparging water
		%	▼
OUTPUTS			
Final Water Alkalinity =	16.7	ppm as CaCO <sub>3</sub>	
Lactic Acid Required =	1.66	(ml)	0.3 (tsp)
Sulfate Added to Water =	0	ppm	
Chloride Added to Water =	0	ppm	
Lactate Added to Water =	77	ppm	
		ppm	

Hover cursor over cells w/ red corner mark to display helpful information

**Recommendations for Sparging Water:** Low to moderate alkalinity is desirable for Sparging Water. **DO NOT add minerals such as chalk, baking soda, or pickling lime to sparging water** since these minerals increase water alkalinity. Sparging water is acidified to reduce pH and alkalinity.

An alternative to adding these alkalinity increasing minerals is to increase the addition of calcium- or sodium-containing minerals (gypsum, calcium chloride, table salt) to compensate for the deletion of chalk, baking soda, or pickling lime from the sparging water mineral additions. Another option to avoid adding these alkalinity producing minerals to the sparging water is to reserve these minerals additions from the sparging water and add them directly to the kettle.