

Manage Blueberry Fertility Through your Trickle System

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Irrigation and Row Crop Supplies

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Brookdale Fruit Farm Inc. is a 7th generation family owned and operated fruit and vegetable farm located in southern NH. Brookdale's primary markets are Wholesale fruit and vegetables, Irrigation and Row crop Supplies division, Retail store locations, and Pick your own fruits and vegetables. Brookdale is the largest diversified fruit and vegetable farm in the state of NH and focuses on growing and distributing many different fruit and vegetable products throughout New England. In recent years Brookdale has become the New England leader in the design, implementation, and utilization of drip and fertigation systems for growing fruit and vegetable crops.

Brookdale has had blueberries in production for pick your own since the early 1980's. We currently operate 7+ acres of high bush blueberries for our pick your own market. These varieties include Blue Ray, Patriot, Bluetta, Blue Crop, and Eliot. The first drip irrigation system was installed on this crop in 1985 and was in continuous yearly use until 2013. At that time the original was replaced due to continued mulching of wood chips over the drip tubing and kinking from bush growth, it was easier to pull new lines than fish out the original working lines. Since that realization as a standard practice after mulching the blueberries we walk each row and pull the tubing back on top of the mulch and to the edge of the bush. This allows for an easy visual check at the beginning of each season for leaks and allows the grower to see the water dripping from the tubing. The primary thing to check when considering feeding plants with fertilizer through a drip system is to make sure your drip system does not have any leaks or breaks.

Our blueberries receive a granular application of ammonium sulfate yearly, and the rest of the nutrients are fed throughout the growing season through our drip system. We typically focus on applying 60 to 75% of required nutrients granularly and depending on weather conditions and timing everything else is fed through the drip system. In some very wet springs where it is impossible to get into the blueberry fields to spread fertilizer early, the drip is turned on for the purpose of applying a starter fertilizer. Fertilization with the drip takes place weekly starting around the end of April to the second week of May and continues straight through with weekly applications till the middle of July. Products used for fertilization is a special berry feed blend created by Plant Marvel Laboratories which is used and distributed throughout the North East by Brookdale Fruit Farm. This unique berry feed blend is a combination of ammoniacal and urea based nitrogen blended with a micro package and a larger sulfur content to help maintain proper

PH for blueberries. This fertilizer is water soluble and available in 25 lb bags and applied at varying rates through the season ranging from 20 to 35 pounds to the acre.

Fertigation is a bit of a tricky application to design and implement on a drip irrigation system. The typical method of injection used is conducted through a venturi type injector, also known as a mazzei injector. The injector has to be sized properly to operate within the functional flow rate range of the area of crops to be fertilized. If a square acre plot of high bush blueberries were to be irrigated and fertilized at a plant and spacing of 6 foot between plants and 12 foot between rows approximately 17 rows would be present per acre. 17 rows at 208 feet long give approximate row footage per acre of around 3600 feet of tubing. That tubing typically has drippers built into it with water dripping every 12 inches at a rate of 0.5 gallons per hour per dripper. The math to equate the flow rate of that acre is as follows ((total row footage / dripper spacing per foot) * flow rate in gallons per hour) / 60 in order to get gallons per minute). ((3600/12)*0.5)/60= 30 gallons per minute of water for square acre of blueberries. Brookdale makes it easy with their premade fertilizer injector assemblies with accompanied flow rate ranges to size a fertilizer injector for your application. For one acre application either a 2 x 1 inch injector or a 2 x ¾ inch injector will work. The premade injector assemblies contain 3 check valves to meet the EPA guidelines regarding chemical water injection and prevent any possible back siphoning of fertilizer to the water source. For more information on injection tools and applications please contact Trevor Hardy at tractortrv@aol.com

Mazzei fertilizer injector assemblies

	Pipe	Injector Size	Flow GPM	Price
Assembly comes with: camlocks, pressure gauge, gate valve on and off, fertilizer barrel mixing valve on garden hose fitting, injector isolation valves	1"	1/2 inch	2 to 9	\$190.00
	2"	3/4 inch	9 to 50	\$305.00
	2"	1 inch	16 to 80	\$350.00
	3"	1 inch	16 to 180	\$480.00
	3"	1.5 inch	34 to 350	\$510.00

Filter	Flow capabilities
2" Single	110 GPM
2" Double	220 GPM
3" Double	440 GPM
3" Triple	660 GPM

