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To: Viticulture Mailgroup <VITICULTURE@BOBO.NWS.ORST.EDU>
From: "Charles E. Edson" <edsonc@msue.msu.edu>
Subject: Re: "T" sprayer concept + electrostatic application
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I've been working with the two MSU Ag. Engineers (Gary Van Ee and Richard Ledebuhr) who designed the proptec ('T') sprayers for about 4 years in commercial vineyard applications. We have used the machine on various trellis systems, including VSP (midwire and low wire), Scott-Henry, Smart Dyson, Ballerina, and GDC. Results have been excellent in all systems. Adequate coverage, in part, relates to how one configures the proptec heads, which deliver spray materials in a rather specific zone. The configuration shown on the the web page <http://www.proptec.com/wraparound.htm> built by Slawson is a good one that gives excellent coverage, although other configurations also work well, depending on the trellis/training system used.

Coverage with this technology is excellent, including the underside of the leaves, and the backsides of clusters. In fact, in is these hard to reach areas that are particularly well served by this technology. It is due to the turbulent nature of the air/water mixture as it leaves the proptech fans and enters the canopy. The technology utilizes small droplets and this turbulence to 'wrap around' the leaves and clusters. We routinely reduce pesticide rates by 25 - 50%. Except for late in the season, we drive every other row and have used between 3.5 and 18 gallons of water per acre, all with excellent coverage and disease and insect control. Usually we are using 6.5 gallons of water per acre. Early in the season we have used as little as 3.5 gallons per acre, reducing pesticide rates by up to 70%. In addition, drift is minimized. Like any sprayer, best results have been obtained in well managed blocks where good vine vigor and canopy management have been practiced.

I have no personal experience with electrostatic vineyard sprayers.

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