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NEWS RELEASE

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Blueberry Production on the Rise in the Southern San Joaquin Valley

Blueberries are gaining popularity in the marketplace due to their growing list of health benefits, including reduced risk of cancer, reduction in age-related loss of mental capacity and LDL cholesterol which may lead to heart attack or stroke, prevention of urinary tract infections and improved eyesight. Researchers at the USDA Human Nutrition Center (HNRCA) found that blueberries are one of the richest sources of antioxidant phytonutrients when compared to 40 other fresh fruits and vegetables. Much like grape, it is the anthocyanins, or pigments which impart fruit color, that are thought to be responsible for these health benefits.

There are over 65,000 acres of blueberries grown in the United States, with about 17,500 acres in production in Michigan. Currently, the volume of berries produced in California represents less than one-half of one percent of total U.S. production. However, blueberry production in the state, estimated at around 1,500 acres, is rapidly increasing.

It may be surprising to most, but fresh blueberry production is growing within the southern San Joaquin Valley (SJV) due to the release of new varieties suitable for the area, early harvest time and advances in soil preparation and irrigation. Choice of varieties for planting is dependent on many different fruit characteristics, canopy growth habit and ripening time. Good fruit quality characteristics include large berry size, sky blue in color, good firmness, presence of a small, dry scar, good flavor, sugars and aroma. Southern highbush varieties are best suited for climates where summers are hot and chilling hours fall below

1000 per year. *Misty* and *O'Neal* have been the standard varieties of choice but current trends in planting from Fresno southward have been *Jewel*, *Star*, *Emerald* and *Millennia*.

Site selection and pre-plant considerations are dominated in the southern SJV by soil pH and water availability. Blueberries are highly sensitive to soil pH and require pre-plant soil acidification down to approximately 5.0-5.5. This is generally done by applying sulfuric acid to the entire field and may require multiple applications depending on the starting point. Furthermore, the irrigation water must also be acidified (to a pH of 5.0) continuously to prevent "pH creep." It is essential to monitor irrigation water with a pH meter to control the amount of acid applied through the system.

In addition to acidification, irrigation management is critical because blueberries have a shallow root system. Blueberries are primarily drip irrigated and require from 3-3.5 ac-ft. of water in a growing season. Mulching over beds after planting is done to increase soil humidity and reduce weed growth. More information on blueberry cultural practices can be obtained by visiting the University of CA Small Farms Center at <http://www.sfc.ucdavis.edu>.

It is estimated that the costs per acre to produce fresh blueberries is extremely high at approximately \$20,500, with most of the costs associated with harvest labor. Net returns per acre above total costs of production depend largely on yields and the price paid per pound. For more information on costs to establish and produce fresh market blueberries in the SJV please visit <http://www.agecon.ucdavis.edu/outreach/crop/crop/blueberries.htm>.

