

IMPACT

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Specialty Potatoes: An Agricultural Alternative

The Situation

Low commodity prices have prompted Magic Valley producers to consider alternative crops and niche markets as a way to remain profitable. Magic Valley potato growers are investigating the feasibility of growing small acreages of specialty potatoes as a part of their current farming operation. Because little information on specialty potato production and marketing in southern Idaho is available, a multidisciplinary team of University of Idaho (UI) faculty conducted studies to provide needed information to growers. The importance of consumer-driven demand for food products was also recognized as an essential element in this study.

Our Response

This project was undertaken to help producers determine the viability of growing specialty potatoes in the Magic Valley. It was organized and executed by a multi-county, interdisciplinary team of five UI District III county extension educators and a potato specialist from



the Department of Plant, Soils, and Entomological Science. Potato producers, Farmers Market coordinators and consumers, grocery store produce managers, and agricultural industry businesses were cooperative partners in the project.

Objectives of this program were threefold: The first was to determine yield and quality of various specialty potato varie-



ties grown under Magic Valley conditions. Field trials were conducted at the UI Kimberly Research and Extension (R & E) Center and a farm trial in Jerome County. Seven specialty varieties were planted including 'Viking Red', 'Nordonna', 'Huckleberry', 'German Butterball', 'Yukon Gold', 'Epicure', and 'Caribe'. 'Russet Norkotah' was included as a commercial variety comparison.



Five additional specialty potato varieties were grown in unreplicated demonstration plots at Kimberly, including 'All Blue', 'Yellow Finn', 'Sangre Red', 'Desiree' and 'Red LaSoda'. During the growing season a Twilight Potato Field Tour was organized for producers and agricultural business representatives.

The second objective was to evaluate consumer preference for the various varieties. Market surveys and taste tests were conducted at the Twilight Potato Field Tour and at Farmers Markets in Hailey and Twin Falls.

Determining the marketability of specialty potatoes was the third objective. Ten grocery store produce managers were surveyed to determine interest in selling specialty potatoes. They were shown representative samples of each variety and asked for realistic per pound prices and acceptability.

The Results

Input from growers, produce managers, Farmers Market consumers, agricultural field consultants, agronomists and potato industry representatives provided insight on varieties that may have the largest

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market potential in the Magic Valley. The use of taste test panels is not a definitive scoring of each variety, but an indication of consumer acceptance and interest.

Farmer's Market taste test results indicated that 'Caribe', 'German Butterball', 'Yukon Gold', 'Viking Red' and 'Nordonna' were ranked high on texture, flavor and appearance.

'Caribe' is a purple skinned potato with a white flesh. 'German Butterball' and 'Yukon Gold' have yellow skin and flesh. 'Viking Red' and 'Nordonna' have a red skin and white flesh. Eighty percent of taste test participants indicated they would purchase all of the seven main specialty varieties tasted, except for 'Huckleberry'. 'Huckleberry' has a pink internal flesh color, which was unappealing to some consumers surveyed.

Produce managers were surveyed for input on variety price and acceptability. Seventy percent of the produce managers said they would purchase 'Yukon Gold' for \$0.20 - \$0.99 per pound. 'Viking Red' was well received by sixty percent of the produce managers (\$0.20 - \$0.69 per pound). Fifty percent of the managers would purchase 'Nordonna' for \$0.39 - \$0.69 per pound. Thirty percent indicated they would purchase 'Caribe' for \$0.30 - \$0.79 per pound. Less appealing to produce managers was 'German Butterball'; only two managers indicated they would purchase this variety for \$0.59 - \$0.79 per pound.



Produce managers indicated the key to selling the non-traditional varieties would be extensive consumer education at in-store displays and taste tests.

Results from the specialty potato studies showed that several varieties had excellent yield and quality when grown under Magic Valley conditions, and good potential for commercial production in a portion of a conventional field. With specialty potatoes, a premium price is typically paid for smaller sized potatoes, six ounces or less. Varieties varied substantially in production of smaller potatoes. The following net returns were determined based on yield of potatoes weighing six ounces or less with no defects, assuming an average sales price of \$0.50 per pound at a Farmer's Market, and a production cost of \$3,000 per acre. The production cost is only an estimate and will

vary greatly depending upon variety, cultural practices, labor, transportation to market, etc. **The estimated net returns per acre for direct marketing potatoes were: \$11,700 for 'German Butterball', \$7,305 for 'Epicure', \$6,310 for 'Nordonna', \$2,955 for 'Caribe', \$2,145 for 'Huckleberry', \$2,050 for 'Norkotah', \$1,765 for 'Yukon Gold', and a loss of \$220 for 'Viking Red'.** To achieve these returns producers would have to spend more time marketing the potatoes at local Farmers Markets than they currently do contracting potato sales. Markets can be easily saturated with specialty varieties, so overproduction must be avoided. Before beginning any production it is highly recommended to evaluate and secure markets for the potatoes.

The specialty potato program was aimed at providing information to aid growers in making the best management decisions in integrating both the economics of production and marketing potential. Results from the studies will help producers who are interested in growing specialty potatoes as part of their current farming operations. Surveying local individuals and businesses on their acceptance and willingness to purchase specialty potatoes provides producers with current information on alternative markets.

Through this project there has been an increase in grower and consumer knowledge concerning the diversity and availability of specialty potatoes. Popular press articles highlighting the specialty potato production project were published in several national magazines - The Spudman, American Vegetable Grower and the Badger Common'tater, and in regional and local newspapers - The Capital Press, The Idaho Farmer Stockman, Farm and Ranch, Times News, and the Wood River Journal.

The Future

Results of this work will be used to publish a Current Information Series (CIS) to be included in the Alternative Agricultural Enterprises UI binder. The results will also be reported to clientele through the UI Potato Conference in January 2001, the UI Southern Idaho Farm Conference, and UI Specialty Food Product Workshop in March of 2001.



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