

Several new apple varieties recommended for growers

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'Fuji' apples have become increasingly popular among consumers, but the apple variety faces some challenges on its path to full consumer appreciation. Research has determined that "consumer acceptance" of apples depends largely on fruit color, size, eating quality, and texture. Consumers are very discerning: poor color can drastically reduce the value of red apples, even if their size is acceptable. The poor and inconsistent peel color of 'Fuji' apple strains has limited the apple's marketability. The authors of a new study say that the introduction of new 'Fuji' strains could increase the apple's popularity and drive up consumer approval.

Esmaeil Fallahi, Bahar Fallahi, and Bahman Shafii from the University of Idaho and Zabihollah Zamani from the University of Tehran published the results of their 6-year study in *HortScience*. The team studied the long-term effects of five 'Fuji' strains ('Autumn Rose', 'Desert Rose', 'Myra', 'September Wonder', and 'Top Export' on RN 29 rootstock) on fruit yield and harvest time quality. "This experiment was designed to determine differences among 'Fuji' strains in southwestern Idaho, which has similar climate conditions as those of the Intermountain West region of the United States and many other regions worldwide," explained author Esmaeil Fallahi, Director of Pomology at the University of Idaho.

The researchers found that fruit of 'September Wonder Fuji' trees were larger than those of other strains in 5 of the 6 years that the experiments took place. 'September Wonder' fruit was less firm than the other strains,



but showed a higher starch degradation pattern every year, traits the researchers attributed to the strain's earlier maturity. "Considering all yield and quality attributes at harvest, 'September Wonder' was a great choice for an early maturing apple strain," Fallahi said.

Outcomes also showed wide variations in apple peel color among those strains categorized as both 'low-coloring' and 'high-coloring'. For example, the scientists determined that the fruits of 'Autumn Rose', 'Myra', and 'Top Export' always had less red color, while 'September Wonder' and 'Desert Rose' had more red color. The authors deemed 'Desert Rose' a good choice for a late-maturing 'Fuji' strain based on the apple's excellent color, great storability, and shape. "'Myra' was particularly desirable for its attractive pink color, resembling bagged 'Fuji' without the expensive cost of labor associated with bagging," Fallahi said. The authors recommend against planting 'Autumn Rose' because the strain produces muddy colored fruit under growing conditions like those in the study.

More information: The complete study and abstract are available on the ASHS HortScience electronic journal web site: hortsci.ashspublications.org/c ... nt/49/3/281.abstract

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