

(44)

BOTH PROHEXADIONE-CA AND GA₄₊₇ REDUCE RUSSET AND SCARF SKIN IN APPLE?

S. McCartney^{1*}, D. Ferree² and JD Obermiller¹

¹ **Department of Horticultural Science, North Carolina State University, MHCREC, 455 Research Drive, Fletcher, NC 28732**

² **Department of Horticulture, Ohio Agricultural Research and Development Center, The Ohio State University, Wooster, OH 44691**

Russet and scarf skin are cosmetic defects of some commercially important apple cultivars that result from aberrant patterns of development in the hypodermal cell layer of the fruit. The severity of both russet and scarf skin is reduced by multiple (3-4) applications of 15-20 ppm GA₄₊₇ ten days apart beginning at petal fall. In field studies over three years it was shown that a single application of the gibberellin biosynthesis inhibitor prohexadione-Ca at petal fall also reduced the severity of both cosmetic defects. Combining GA₄₊₇ and prohexadione-Ca had an additive effect on russet and scarf skin severity. Reductions in russet and scarf skin following prohexadione-Ca treatment are discussed in relation to its effects on gibberellin biosynthesis and metabolism.