

## Annual Report to NC-140

### 2003 'Golden Delicious' Physiology Trial

November 2004

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Twenty one cooperators received 10 'Gibson Golden Delicious' trees on each of three dwarfing rootstocks (M.26, M.9T337, and G.16). Trees were planted in the spring of 2003 in a completely randomized design. Trees will be trained to the Vertical Axis system according to the simplified pruning and training plan developed by Terence Robinson. As trees start to fruit regularly, hopefully in 2005 or 2006, trees will be thinned differentially to predetermined crop loads to evaluate the effect of rootstocks on the relationship between average fruit weight and crop load.

Crop load treatments will begin in 2006. In 2005 some cooperators want to fruit the trees to moderate tree vigor. Cooperators must decide if individual trees should be cropped in 2005. Be sure not to overcrop the trees because we want all trees to bloom heavily in 2006. A suggested crop load of about 4 fruit per square cm of TCA should allow a good return bloom.

Until we start to impose treatments, I would like to receive data on tree status and TCA. Please use the following example of a spreadsheet to submit data and follow the instructions for data collection and transmission for the 2003 DWARF Rootstock Trial.

Year	site	tree	rootstock	Status 2=missing 1=live 0=dead	TCA (cm <sup>2</sup> )
2003	me	1	M26	1	xx.x
2003	me	1	T337	1	xx.x
2003	me	1	G16	0	xx.x
2003	me	2	T337	1	xx.x
2003	me	2	G16	1	xx.x
2003	me	2	M26	1	xx.x