

### **Abstract**

Fruit that have peelable skins are perceived as being convenient and easy-to-eat. Commercially available green and gold kiwifruit varieties are not peelable. Fruit of a kiwifruit species, *Actinidia eriantha*, have a peelable skin. This trait is genetically heritable. The factors underlying the peelability trait are being investigated at the morphological, genetic, biochemical and molecular level. Semi-quantitative PCR and microarray analysis are being used to identify “candidate peelability” genes from HortResearch’s proprietary kiwifruit EST database that differ in expression between clean and messy-peeling varieties. Genes of interest are being tested in transgenic plants (*Arabidopsis* and *A. eriantha*) and in biomechanical assays (using enzymes over-expressed in *E. coli*).