

CHOOSING THE CORRECT POLLINATOR

Most of the commonly grown plum cultivars grown in South Africa are unable to self-pollinate and require a pollinator to set fruit. In recent years, a better understanding of the molecular and biochemical mechanisms involved have led to the development of a technology that enables the prediction of molecularly compatible cross pollinators through S-allele genotyping.

Although many cultivars have been genotyped during the development of these molecular tools, the South African industry has not yet benefited from the application of this technology. Provar, an independent fruit cultivar and rootstock evaluation company, provides services that support their clients' product development activities. Near the end of last year Provar set out to provide some clarity to the question of choosing the correct cross pollinators for clients in the plum industry, focussing on new cultivars.

The data that Provar provided to its clients was well received as it enabled the cultivar owners / agents to advise producers on the selection of the correct pollinator. For more information, contact Carl Hörstmann 083 300 7800, or carl@provar.co.za, or visit their website (www.provar.co.za)

Table 1. An example table indicating the genetic compatibility relationships within an average flowering window of selected cultivars. A  indicates full compatibility, a  indicates semi-compatibility, and a  indicates non-compatibility. *'African Rose', 'Harry Pickstone', and 'Pioneer' all carry a self-compatible mechanism and is theoretically at least semi-compatible with most plum cultivars.



CULTIVAR	Week	African Rose*	Pioneer*	African Delight	Harry Pickstone*	Fortune	Ruby Sun	Sapphire	SunKiss	Ruby Crunch	Songold	Ruby Star
		34/35	35	35	36/37	36/37	36/37	36/37	36/37	37/38	37/38	38/39
African Rose*	34/35	-	-	-	-	-	-	-	✓	-	✓	-
Pioneer*	35	-	-	-	-	-	-	-	✓	-	✓	-
African Delight	35	-	-	X	✓	✓	✓	-	-	-	-	-
Harry Pickstone*	36/37	-	-	✓	-	-	-	-	✓	✓	-	-
Fortune	36/37	-	-	✓	-	X	X	-	-	-	✓	✓
Ruby Sun	36/37	-	-	✓	-	X	X	-	-	-	✓	✓
Sapphire	36/37	-	-	-	-	-	-	X	✓	-	✓	-
SunKiss	37/38	✓	✓	-	✓	-	-	✓	X	-	-	✓
Ruby Crunch	37/38	-	-	-	✓	-	-	-	-	X	✓	-
Songold	38/39	✓	✓	-	-	✓	✓	✓	-	✓	X	-
Ruby Star	39	-	-	-	-	✓	✓	-	✓	-	-	X

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