

Crab Apple

'Providence'

Developed by University of Guelph at Horticulture Research Station, Simcoe
Breeder: Dr. John Cline (photos by Dr. Cline)



Fruit harvested from 'Providence' crab in September 2017



3-yr old 'Providence' crab grafted on M.26 rootstock

General Information

Availability	Available immediately; non-exclusive license for propagation and sale in Canada Royalty Rate = \$1/tree
Suitability	Cider making (blend); jams and jellies; ornamental
Experimental Name	B17Crab7
Parentage	Open-pollinated cross of Empire (from the year 2000)
Intellectual Property	Canadian Plant Breeder's Rights application in progress (anticipated PBR grant by Spring/Summer 2021)
Contact for Licensing	Rattan Gill, rattang@uoguelph.ca

Fruit Juice Characteristics

Colour	Crimson red
Juice extraction efficiency	809 litres/1000 kg fruit
BRIX %	12 %
Titrateable acidity	2.52 mg Malic acid
Polyphenols	954 µg/ml gallic acid equivalent (high)



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Agronomic Characteristics

Tree vigor	High vigour when grafted on M.26 EMLA (semi-dwarf rootstock) High vigour when grafted on M.9 (dwarf rootstock)
Tree habit	Spreading
Precocity	Good to Excellent
Productivity	Very productive and annual bearing when not thinned. Yields up to 100 kg/tree on 11-yr-old trees on M.26 rootstock. Crops load ranged from 16-32 fruits/cm ² trunk cross-sectional area.
Fruit maturity	Late August to early September (Simcoe, ON)
Fruit Size	Approximately plum size, very large for a crab apple. Weight range: 20-43 g (when not thinned)
Fruit colour	Very distinct fruit with reddish-purple skin and red flesh through the mesocarp, crimson juice when extracted.
Fruit shape	ellipsoid conical (ovoid)
Fruit pedicel	Long
Appearance	Red leaves at bloom that turn dark green during development. Pink flowers when fully open Distinctly red shoots
Other	Fruit may develop longitudinal cracks, especially when over-mature
Uniformity and stability	The tree is consistent in size and growth habit, and produces similar size, shape, flavour and colour characteristics of fruits annually.
Cold Hardiness	Unknown; has survived at research station in Simcoe for over a decade without any notable winter injury





Comparison of 'Providence' (formerly Block17Crab7), Kerr, Thunderchild crab apple varieties: fruit size, shape, skin colour, flesh colour, and seed size and colour