

English cider apples & orchard systems

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Outline

- Who we are and what we do
- A brief look at the history of English cider-making and the global cider market
- The apples our cider-makers want today, and why
- Varieties, orcharding systems
- Viability and future thinking

Who we are what we do

Neil Macdonald:

- Farmer, cider-maker, orchardist
- NACM (Pomology), **O**rchards **N**etwork of **E**xcellence
- Nuffield Scholar 2015:
"Orcharding for the Next Decade for the Cider Industry"
- Orchard management; 800 acres
Somerset, UK



Cider-making in England

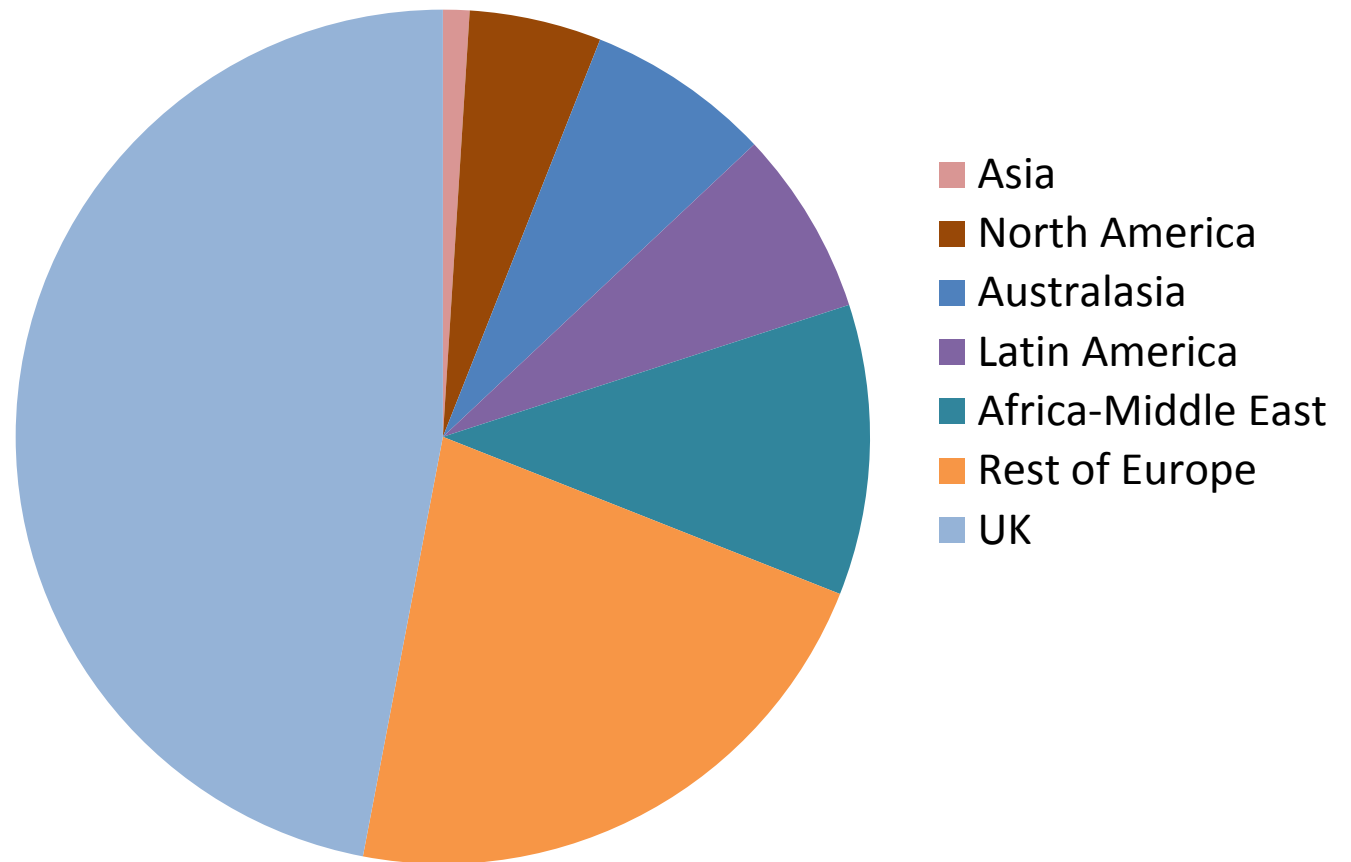
- Romans
- Monasteries
- Industry
- Cider houses
- 2006



Global cider production

National Shares of Cider & Perry, 2012

- 47% global production is UK = 1.5 billion pints p.a.



Yields since 1970s

1970s:

3.5 tons per acre - standard trees

1980s:

6.5 tons per acre - standard trees

13 tons per acre - bush trees

1990s:

9 tons per acre - standard trees

16 tons per acre - bush trees

2010:

20 tons per acre, (best 25) - bush trees



What our cider-makers want today

- Commodity production
- Volume in litres
- Bittersweet fruit
- Sugar, tannins, acidity



	Bittersweet percentage	Bittersharp percentage	Sweet percentage	Sharp percentage
Acid	≤ 0.45	> 0.45	≤ 0.45	> 0.45
Tannin	> 0.20	> 0.20	≤ 0.20	≤ 0.20

Varieties

- Traditional bankers
 - Morgan Sweet
 - Yarlington Mill
 - Dabinett
 - Michelin
 - Kingston Black
 - Browns



Varieties

- modern varieties

Katy

Gilly

Hastings

Fiona

Vicky

Three Counties



Varieties

- new varieties?

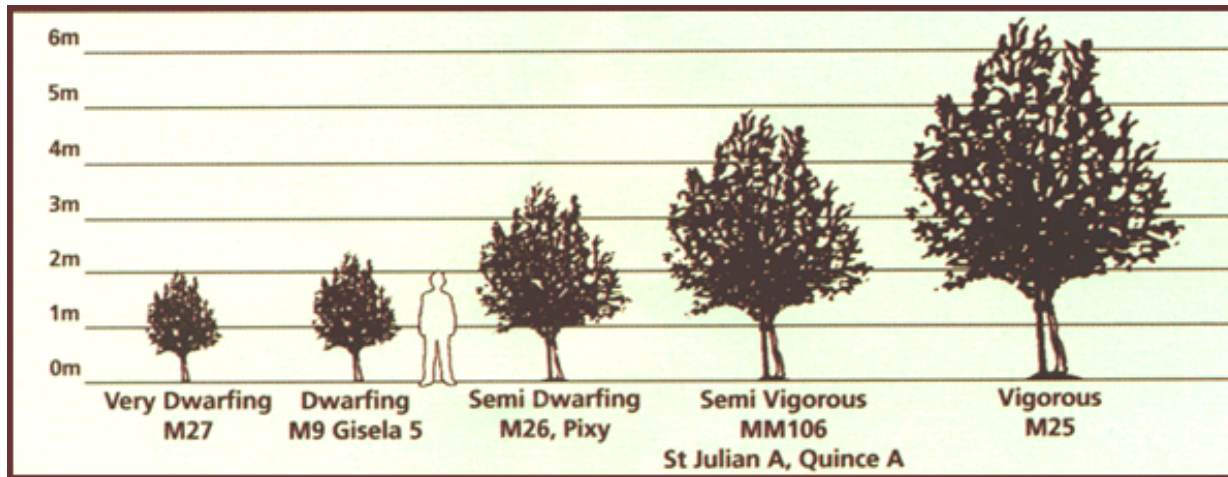
Taste
pollination
yield of liquid
high in sugar, acid
and tannin
robust
disease resistance

winter chill
adaptability
easy care
water stress
tolerance
systems



Orcharding systems

Rootstock options



- **M25** - vigorous apple stock, use for traditional standard trees
- **MM111** - vigorous apple stock, use for traditional standard trees
- **MM106** - semi-dwarf apple stock, use for espaliers and bush trees
- **M7** - semi-dwarf apple stock, use for bush trees
- **M9** - dwarf apple stock, use for dwarf bushes and cordons
- **M26** - semi dwarf apple stock use for bushes and multiple cordons
- **M27** - very dwarf apple stock, used for patio trees and step-overs

Orcharding systems

- Planting options

Spacings	Tons/Ac
Standard cider 24 x 30 ft 60 trees per ac	10
Bush cider 8 x 18 ft 190 trees per ac	20
Dessert 2.5 x 12 ft 980 trees per ac	26



Orcharding systems

- Management options



Orcharding systems

- Harvesting options



Viability

- £7-10K per acre/payback year 7-8
- Full yield by yr 10/min 25yr investment
- Price per ton is priority/ yield per acre is next
- Inputs must be kept in line with yield
- System & size is key to cost control
- **A long term contract is essential**

Future thinking

- Shake & catch?
- New varieties - genetics
- Better juice extraction
- Over supply of eating apples!
- Bittersweet fruit - essential for the growth of the industry

Thank you



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