

Processing Tomato Cultivar Trials 18-19

Objectives of the trial program

To find cultivars with equivalent or better characteristics than the current industry standards of:

- H1015 (early season)
- H3402
- H3402 Mix

Current Cultivar Selection Criteria

Field Requirements

General

- Yield
- Extended field storage (EFS)
- Disease tolerance
- Sunburn resistance
- Jointless

Processing Requirements

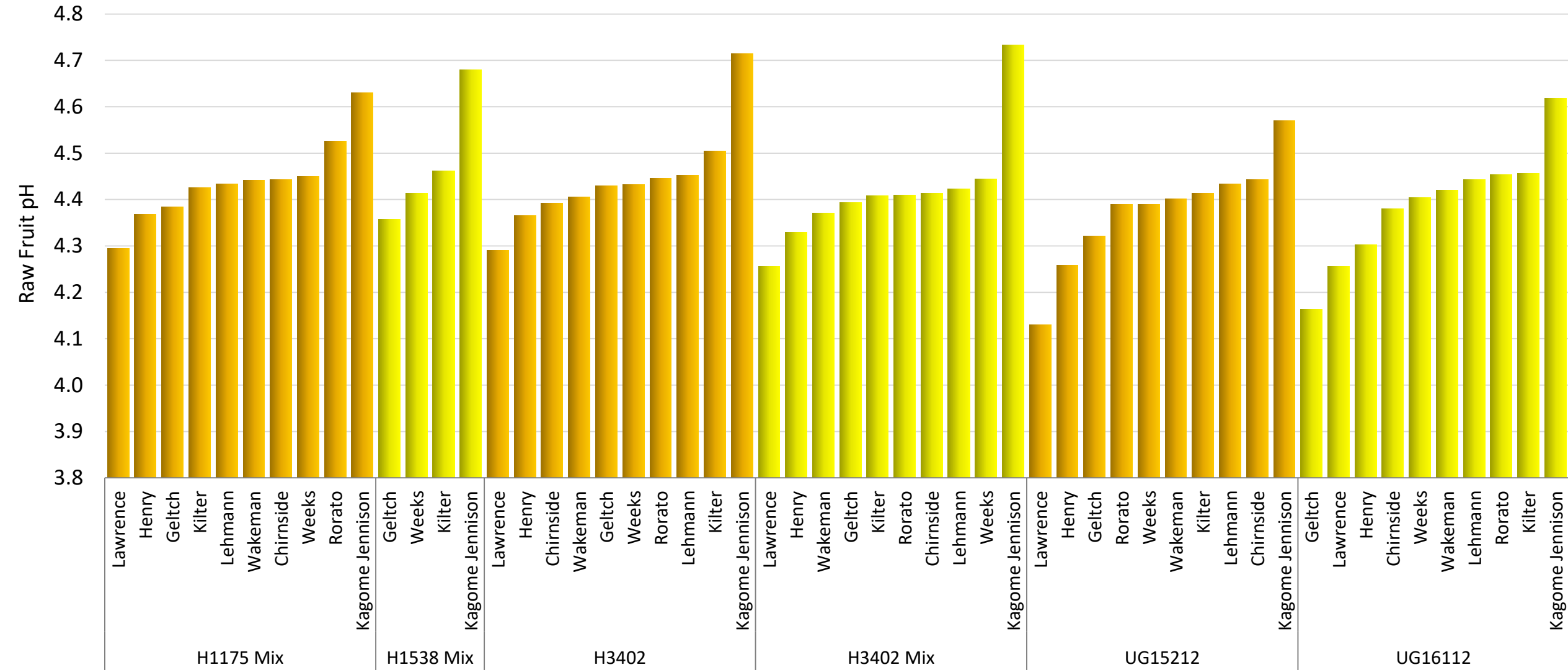
Paste (H3402/H2401)

- Viscosity
- Colour
- pH
- Earliness
- °Brix

Peel (H3402)

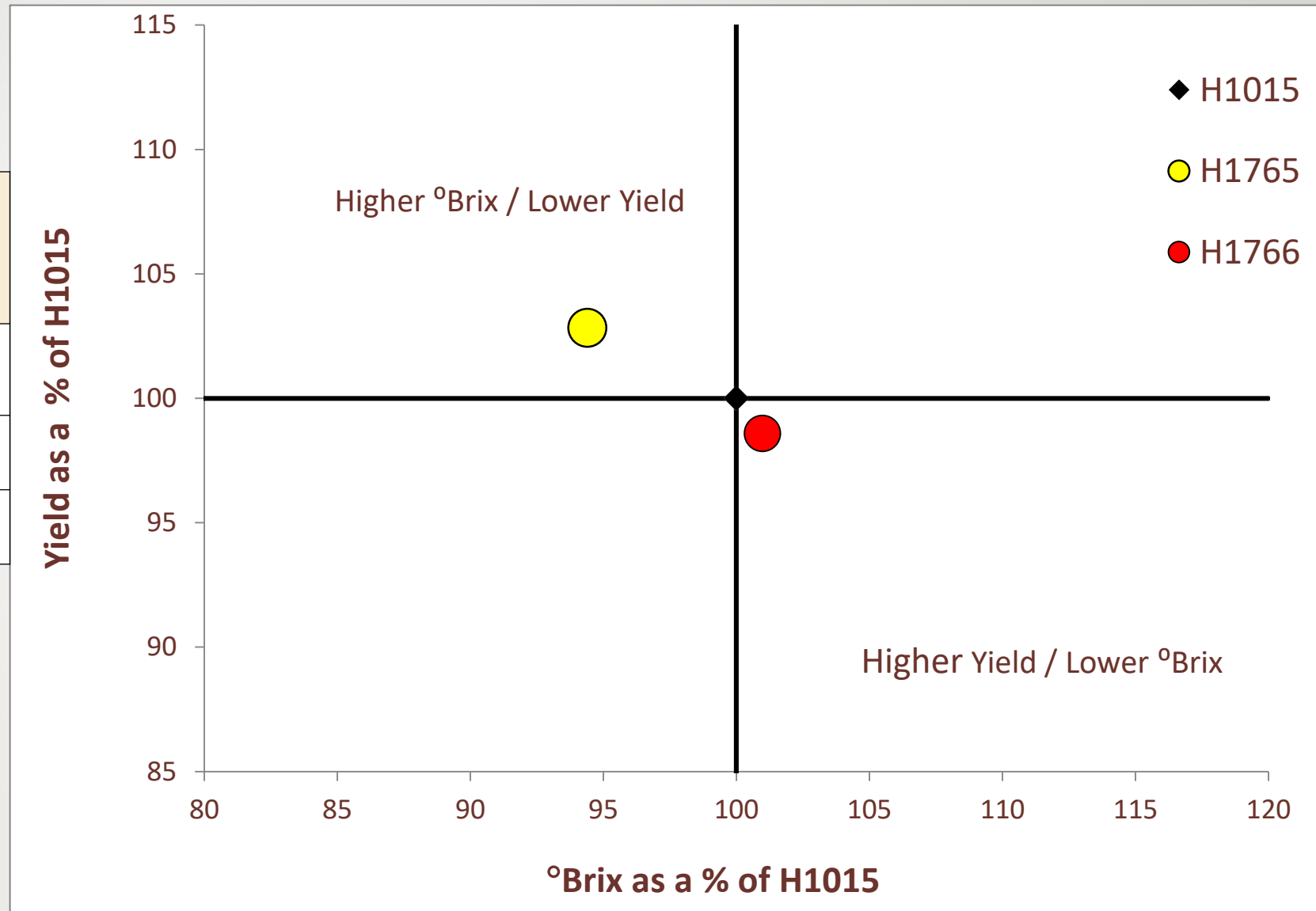
- Peelability
- °Brix
- Colour
- pH
- Flavour
- Texture
- Size

pH (18-19 trials)

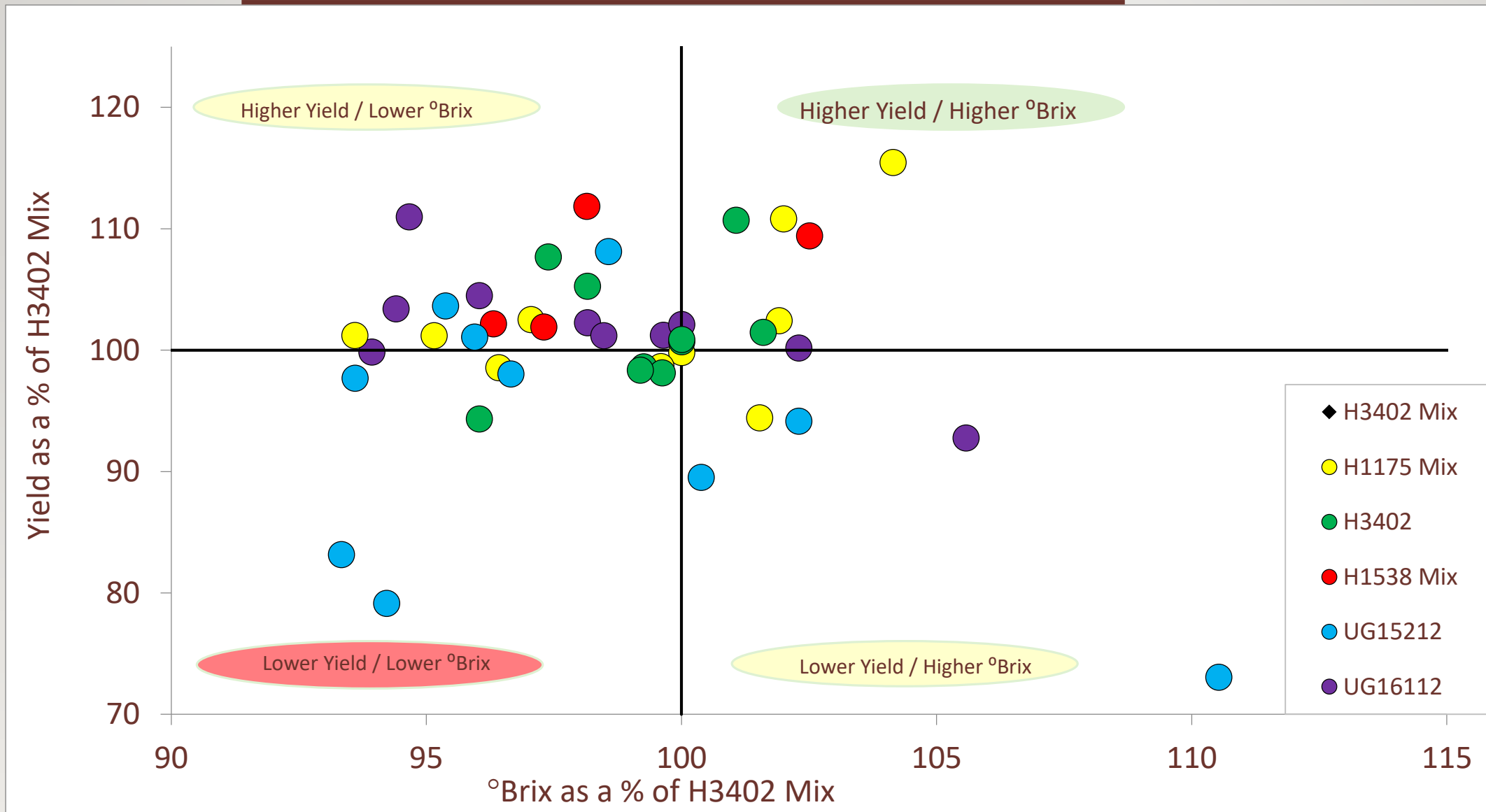


18-19 Early Season Trial Results

| Variety | Yield (t/ha) | °Brix | Soluble solids (t/ha) |
|---------|--------------|-------|-----------------------|
| H1015 | 77.49 | 6.07 | 4.70 |
| H1765 | 79.68 | 5.73 | 4.57 |
| H1766 | 76.39 | 6.13 | 4.67 |



18-19 Mid Season Yields & °Brix as a percentage of H3402 Mix



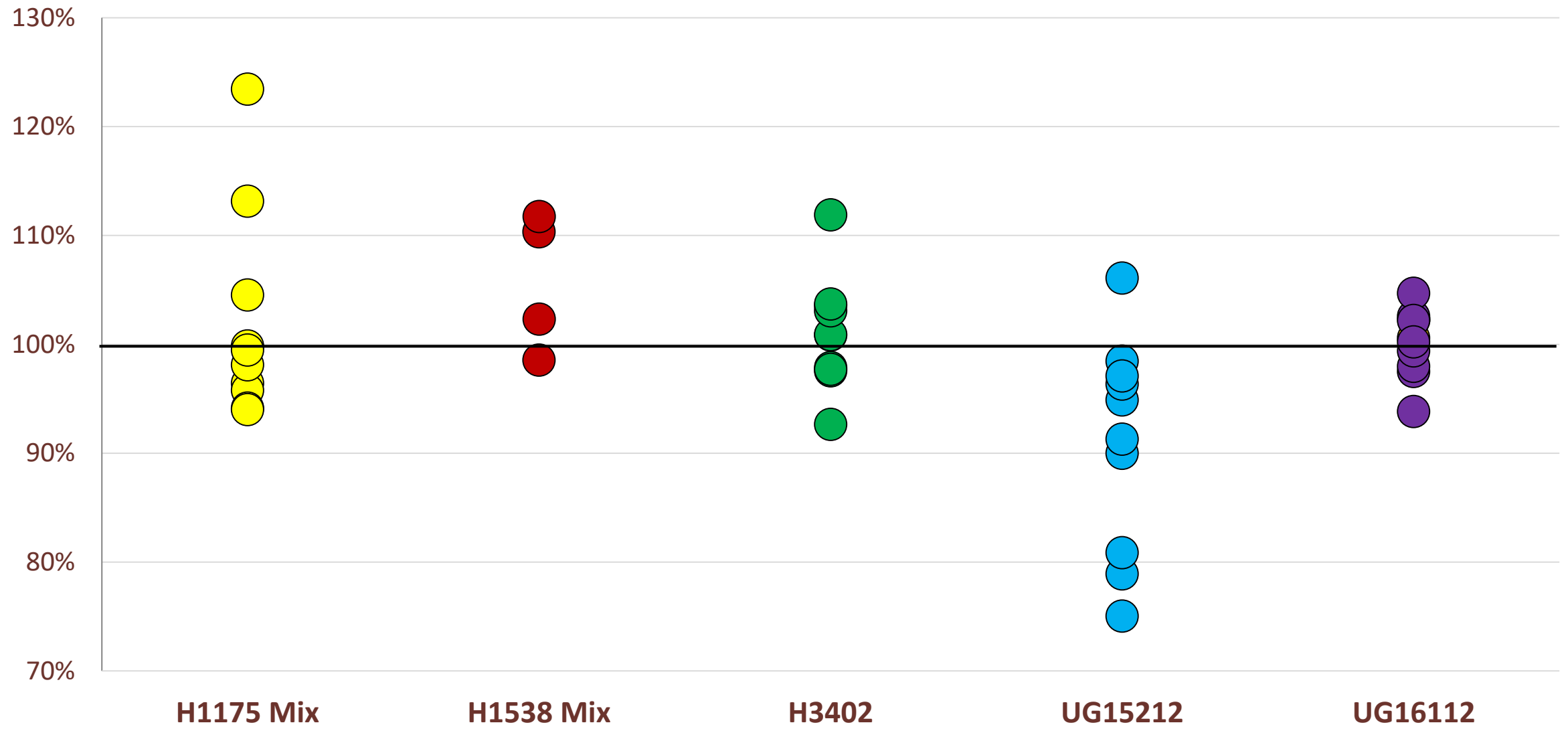
Trial mixes

(all 50:50):

- H1175/H3402 Mix
- H1538/H1175 Mix
- H3402/H2401 Mix

18-19 Mid Season Soluble Solids

Soluble solids as a % of H3402 Mix



Ranking of Cultivars on Yield

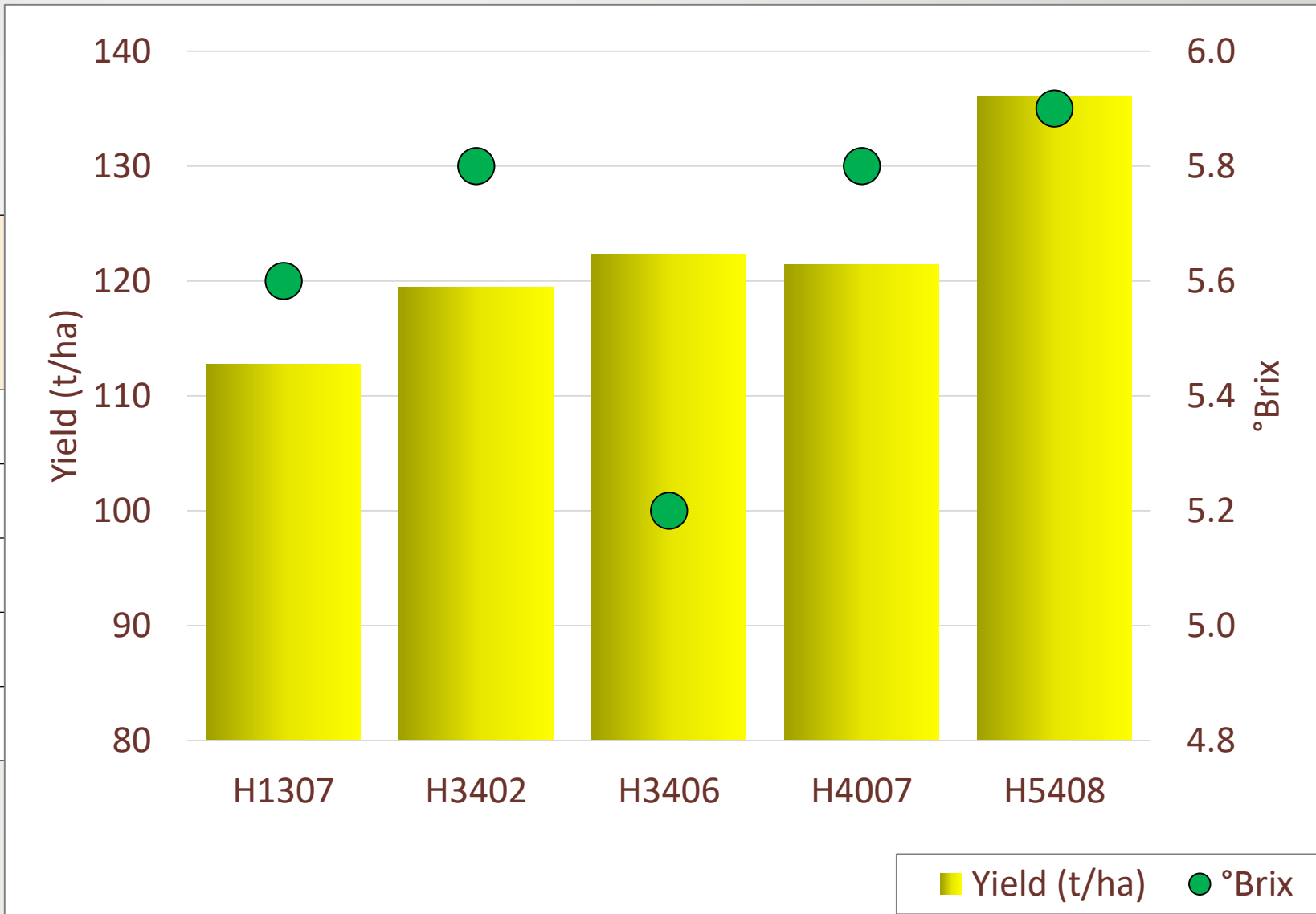
| Yield (t/ha) | Highest | | | | | Lowest |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Chirnside | H3402 | UG16112 | H1175 Mix | H3402 Mix | UG15212 | |
| Geltch Castle Rd | H1538 Mix | H3402 Mix | H1175 Mix | H3402 | UG15212 | UG16112 |
| Henry | UG16112 | H3402 Mix | H3402 | H1175 Mix | UG15212 | |
| Kagome Jennisons | H1175 Mix | UG16112 | H1538 Mix | H3402 Mix | H3402 | UG15212 |
| Kilter | H1538 Mix | UG15212 | UG16112 | H3402 | H3402 Mix | H1175 Mix |
| Lawrence | H3402 Mix | UG16112 | H1175 Mix | H3402 | UG15212 | |
| Lehmann | H1175 Mix | H3402 | UG16112 | H3402 Mix | UG15212 | |
| Rorato | UG16112 | H3402 | UG15212 | H1175 Mix | H3402 Mix | |
| Wakeman | H1175 Mix | UG16112 | H3402 | H3402 Mix | UG15212 | |
| Weeks | H3402 | H1175 Mix | UG16112 | H1538 Mix | UG15212 | H3402 Mix |

Ranking of Cultivars on °Brix

| °Brix | Highest | | | | | Lowest |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Chirnside | H3402 Mix | H3402 | H1175 Mix | UG16112 | UG15212 | |
| Geltch Castle Rd | UG16112 | H3402 Mix | H1175 Mix | H3402 | H1538 Mix | UG15212 |
| Henry | H1175 Mix | UG15212 | H3402 Mix | H3402 | UG16112 | |
| Kagome Jennisons | H1175 Mix | H3402 Mix | H1538 Mix | UG16112 | H3402 | UG15212 |
| Kilter | H1538 Mix | H3402 | H3402 Mix | UG16112 | UG15212 | H1175 Mix |
| Lawrence | UG15212 | H3402 Mix | H1175 Mix | H3402 | UG16112 | |
| Lehmann | UG16112 | UG15212 | H1175 Mix | H3402 | H3402 Mix | |
| Rorato | H3402 | H3402 Mix | UG15212 | UG16112 | H1175 Mix | |
| Wakeman | H1175 Mix | H3402 | UG16112 | H3402 Mix | UG15212 | |
| Weeks | H3402 Mix | H3402 | UG16112 | H1175 Mix | H1538 Mix | UG15212 |

Heinz/Weeks non replicated comparison – indicative results only

| Cultivar | Yield (t/ha) | °Brix | Soluble solids (t/ha) |
|----------|--------------|-------|-----------------------|
| H1307 | 112.74 | 5.6 | 6.31 |
| H3402 | 119.49 | 5.8 | 6.93 |
| H3406 | 122.30 | 5.2 | 6.36 |
| H4007 | 121.46 | 5.8 | 7.04 |
| H5408 | 136.08 | 5.9 | 8.03 |



18-19 Observational Plot Cultivars

- E15M 70077
- E15M 70084
- E15M 70088
- HMX 58811
- SVTM9000
- SVTM9003
- SVTM9007
- SVTM9008
- SVTM9015
- SVTM9016
- SPS 272-6
- SPS 306-7

19-20 Proposed Trial Cultivars (Machine Harvest)

Subject to seed availability

Early Season Trials

- H1015
- H1766
- H1879 **
- SVTM9000*

* Advanced from observational trials

** Advanced from Heinz adaptor trials

Mid Season Trials (direct seed & transplant)

- H1175
- H1175:H3402 (50:50 Mix)
- H1881 **
- H1884 **
- H3402
- H3402/H2401 (50:50 Mix)
- H4007 **
- H5408 **
- H5408:H1175 (50:50 Mix)
- SVTM9003 *

Mid Season Trials (transplant only)

- UG16112
- UG19406:UG16112 (50:50 Mix)

- H – Heinz
- SVTM - Seminis
- UG – United Genetics

19-20 Proposed Observational Trials

- E15M 70077
- SVTM9015
- SVTM9016
- HMX 58811
- SPS 094-8
- UG124

- E15M – Enza Zaden
- HMX – HM Clause
- SPS – South Pacific Seeds
- SVTM - Seminis
- UG – United Genetics

Machine Harvest Trial Methodology

Current Machine Harvest Trials

- Randomised complete block design
- Five replicates where possible

Challenges

- Variability in paddock soil type/water application across trial
- Weed pressure
- Adverse weather events
- Sourcing new cultivars – increasing seed testing costs