

Potato cultivar Lady Balfour, an example of breeding for organic production

John Bradshaw¹, Paul Coleman² and Finlay Dale¹

¹SCRI, Invergowrie, Dundee DD2 5DA, UK. ²GreenvaleAP, Floods Ferry Road, Dodington, March PE15 0UW, UK
john.bradshaw@scri.ac.uk

Introduction

Late Blight (*Phytophthora infestans*) resistance is highly desirable in potato cultivars for organic production.



Without resistance when blight appears:

- use copper-based fungicides
- defoliate, with loss of yield

Blight resistance is an important objective at SCRI



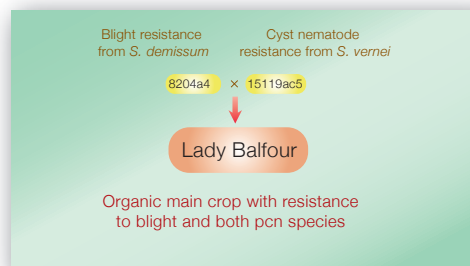
Lady Balfour

Lady Balfour came from programme aimed at combining field resistance to late blight with quantitative resistance to potato cyst nematodes (*Globodera rostochiensis* and *G. pallida*).

National listed in 2001

Organic ware trials in England

- GreenvaleAP (three sites, 2001-2003)
- NIAB (two sites, 2000-2006)



Lady Balfour has high marketable yield and suitability for organic production.

Moderate resistance to late blight and useful partial resistance to cyst nematodes

Good resistance to powdery scab and PVY

Leading organic potato in Great Britain, marketed by GreenvaleAP



Conclusions

Conventional breeding for resistance to late blight and cyst nematodes produced a variety suitable for organic production.

Chances of future breeding success may be increased by selection in organic or low input environments.

Increased emphasis on

- Rapid establishment
- Good ground cover
- Early bulking yield potential
- Tolerance to drought stress
- Better root system

