

# Closer spacing for round seed production – is it worth it?

Increasing yields of round (whole) potato seed will improve seed export opportunities. The effect on round seed yields of changing plant and row spacing was tested in Atlantic potatoes in the 1998/99 season.

**Methods:** Trials were conducted at Thorpdale and Smeaton, in Victoria, using:

- Two row spacings – conventional (Con) (2 rows 80cm apart) and 3Row (3 rows 40cm apart); and
- Four plant densities (5,7,10 and 15 plants/m<sup>2</sup>). Plant spacings are shown in Table 1.
- Extra fertiliser was applied to high-density treatments.

**Results:** Similar results were found at both sites; data from Thorpdale are shown here.

- The most important size categories for round seed are 35-110g and 110-200g. Average yields for these categories are shown in Figure 1.
- Seed prices and input costs were applied to yield data to compare net returns (Table 1).

Figure 1. Average yield (t/ha) of 35-110g and 110-200g tubers, Thorpdale.

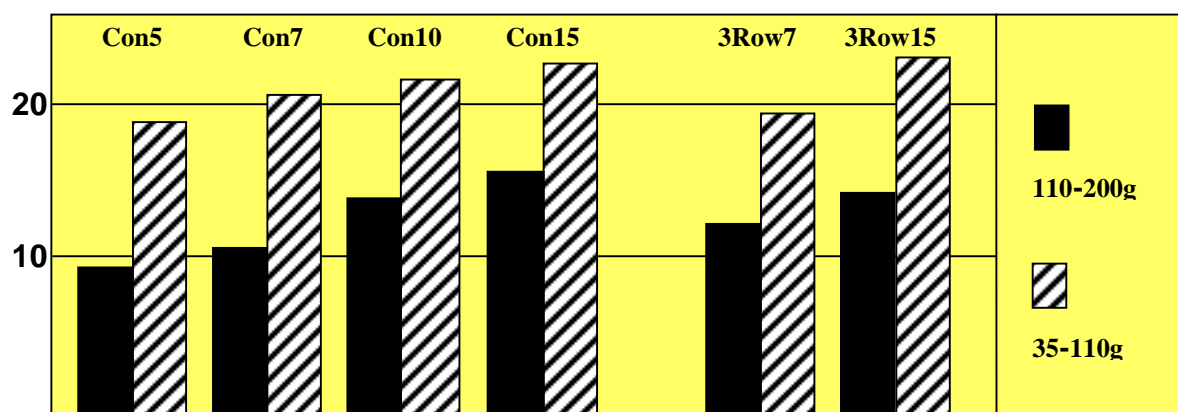


Table 1. Calculation of average net returns (\$/ha), Thorpdale.  
(note: only those costs which varied between treatments are included here)

Treatment	Plant spacing (cm)	Total yield (t/ha)	Gross income (\$/ha)	Seed cost (\$/ha)	Fertiliser cost (\$/ha)	NET RETURN (\$/ha)
Con5	24	32.5	12,915	1,654	210	11,051
Con7	17	35.3	13,956	2,397	210	11,349
Con10	12	39.0	15,547	3,308	420	11,819
Con15	8	41.6	16,557	4,962	630	10,965
3Row7	25	34.9	13,910	2,397	210	11,303
3Row15	12	40.1	16,164	4,962	630	10,572

In general, increasing planting density increased tuber yields and gross incomes. However, when the costs of applying each treatment were considered, net returns were similar. No treatment produced an outstanding result at both trial sites.

[Source: Fact sheet by A.Henderson, K.Moorthy, P.Carr, B.Fry and P.Franz, 2000 (Agriculture Victoria)]