

Onion information kit

Reprint – information current in 1997



REPRINT INFORMATION – PLEASE READ!

For updated information please call 13 25 23 or visit the website www.deedi.qld.gov.au

This publication has been reprinted as a digital book without any changes to the content published in 1997. We advise readers to take particular note of the areas most likely to be out-of-date and so requiring further research:

- Chemical recommendations—check with an agronomist or Infopest www.infopest.qld.gov.au
- Financial information—costs and returns listed in this publication are out of date. Please contact an adviser or industry body to assist with identifying more current figures.
- Varieties—new varieties are likely to be available and some older varieties may no longer be recommended. Check with an agronomist, call the Business Information Centre on 13 25 23, visit our website www.deedi.qld.gov.au or contact the industry body.
- Contacts—many of the contact details may have changed and there could be several new contacts available. The industry organisation may be able to assist you to find the information or services you require.
- Organisation names—most government agencies referred to in this publication have had name changes. Contact the Business Information Centre on 13 25 23 or the industry organisation to find out the current name and contact details for these agencies.
- Additional information—many other sources of information are now available for each crop. Contact an agronomist, Business Information Centre on 13 25 23 or the industry organisation for other suggested reading.

Even with these limitations we believe this information kit provides important and valuable information for intending and existing growers.

This publication was last revised in 1997. The information is not current and the accuracy of the information cannot be guaranteed by the State of Queensland.

This information has been made available to assist users to identify issues involved in onion production. This information is not to be used or relied upon by users for any purpose which may expose the user or any other person to loss or damage. Users should conduct their own inquiries and rely on their own independent professional advice.

While every care has been taken in preparing this publication, the State of Queensland accepts no responsibility for decisions or actions taken as a result of any data, information, statement or advice, expressed or implied, contained in this publication.



Queensland Government



Before you **START**

If you have never grown onions before, then you will find this section very useful. It is a brief checklist of the essential things you need to know before you start. It will help you make the right decision about growing onions.

The information here is brief and to the point. More detail on important areas is provided in other sections of the kit. Symbols on the left of the page will help you make these links.

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An overview of the Queensland onion industry

The Queensland onion industry is worth \$13 million and produces between 18 000 and 26 000 tonnes of onions each year. A further 2200 t of spring onions and shallots, worth \$2.5 million, are also produced. The industry is concentrated in the Lockyer Valley where 80% of the crop is grown. Onions are also grown commercially on the Eastern Darling Downs, and in small quantities in the Callide Valley and on the Atherton Tableland.

In the Lockyer Valley, seed can be planted from late February to June, allowing a wide range of varieties to be grown. The other Queensland production areas have a more restricted growing season. The choice of variety for a particular planting date is critical because of the effect of temperature and daylength on the formation of bulbs. Queensland onion varieties are derived from short day tropical onions. The long day temperate onions grown in southern Australia (such as Cream Gold) will not form bulbs when planted in Queensland.

Queensland onions are sold primarily in the Brisbane, Sydney and Melbourne markets from July to December. A small export market into parts of Asia and the Pacific Islands is being developed. For the industry to remain competitive, Queensland onions need to be promoted as mild onions (low pungency). They can be used in fresh salads or in cooking, particularly for barbecuing, and should not be confused with the highly pungent southern cooking onion.

Know what you are getting into

Onions require a high level of management to achieve optimum yields. Weed and disease management are crucial to successful production. Good weed control is costly and can be difficult to achieve. Downy mildew fungus is difficult and expensive to control, particularly in prolonged wet periods. This disease will reduce the leaf area of the plants, reducing the potential yield. White rot is a soil-borne disease which remains in the soil for 15 years or more and can seriously reduce yields.

Onion yields can also be reduced by poor plant establishment (due to poor seedbed preparation), unseasonable conditions (for example heavy rain or strong winds) and pest or disease damage.

Markets are volatile and consumers do not fully understand the characteristics of Queensland onions. Early in the season, Queensland onions often compete with carry-over southern onions. As the early season onions often do not store well they can be priced lower than the long keeping, more pungent southern onions. The prices for early season onions, particularly early browns, will depend on how many southern onions remain at the beginning of the new season.

Quality of onions is important in the marketplace, and the almost exclusive reliance on hired labour for harvest can adversely influence



Understanding the onion plant
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quality. Curing and grading are also key areas that influence the quality and the price received. The market may be oversupplied but export opportunities exist for the sweet, salad-type onion that is produced in Queensland.

What you can expect to make

Yields

Yields vary from 25 to 50 tonnes per hectare. Average yields in the Lockyer Valley are about 30 t/ha over the full year, but increase to 40 t/ha for the main crop harvested in September and October.

Prices

The average price for onions is between \$200 and \$750 per tonne, with an average around \$400 per tonne. Prices have reached \$1000 per tonne. Onions are usually sold in 20 kg bags.

Graphs of average prices and market throughput for the Brisbane and Sydney markets for 1994 to 1996 are shown in Figures 1 to 6. The bigger the variation above or below the average price, the greater the opportunity or risk involved.



Sources of detailed market price data
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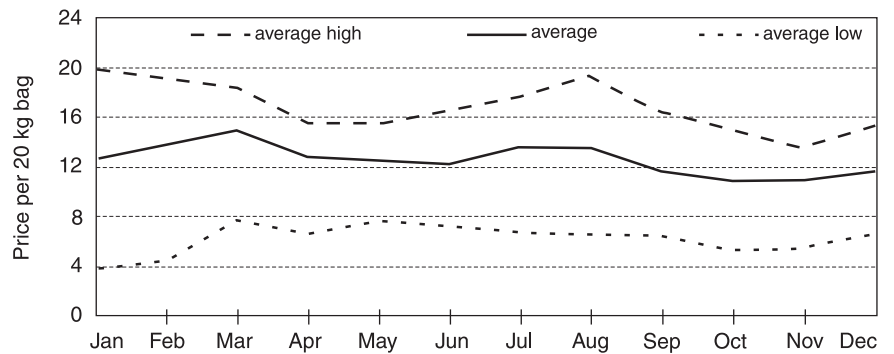


Figure 1. White onions: average monthly price at the **Brisbane** market (1994 to 1996)

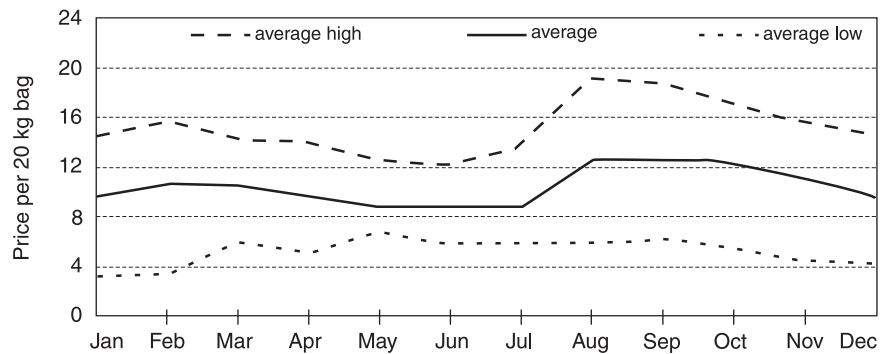


Figure 2. Brown onions: average monthly price at the **Brisbane** market (1994 to 1996)

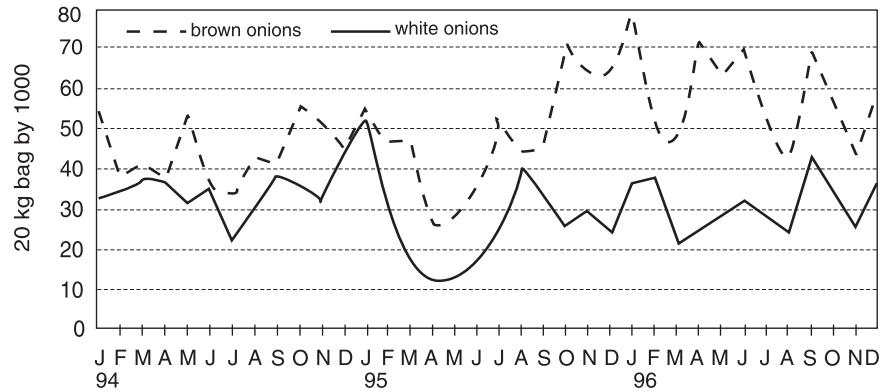


Figure 3. Average monthly throughput of onions at the **Brsbane** market (1994 to 1996)

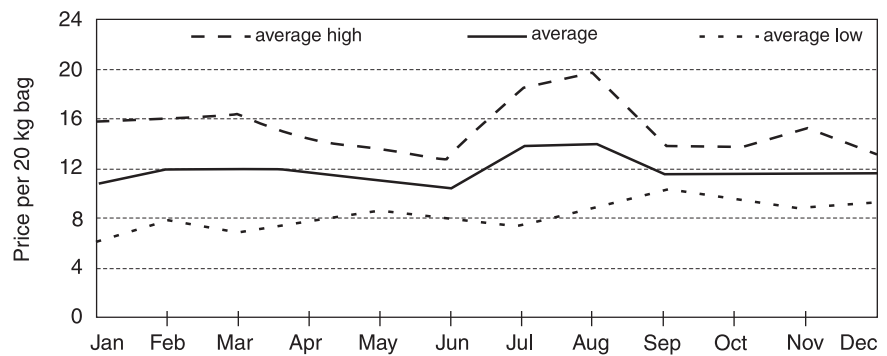


Figure 4. White onions: average monthly price at the **Sydney** market (1994 to 1996)

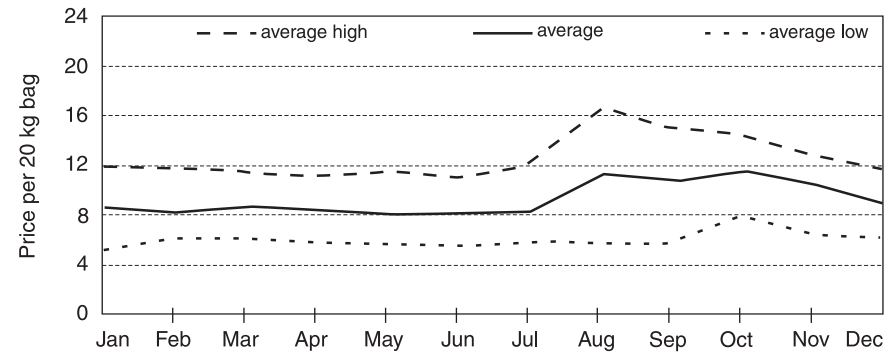


Figure 5. Brown onions: average monthly price at te **Sydney** market (1994 to 1996)

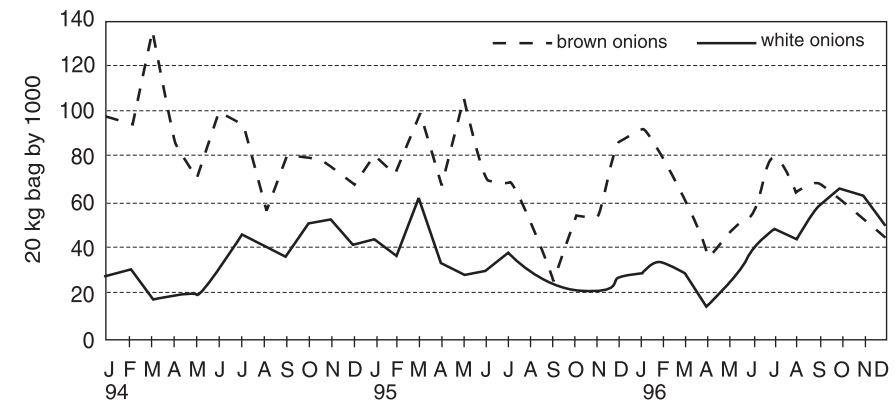


Figure 6. Average monthly throughput of onions at the **Sydney** market (1994 to 1996)



Economics of production
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Production costs

For an average crop yielding 40 t/ha, it costs about \$1250 per hectare to grow the crop ready for harvesting. Hand cutting costs \$3000 per hectare, while curing, drying and bagging cost a further \$3000 per hectare.

Income

Based on an average yield of 40 t/ha and \$400 per tonne, a net return of \$7350 per hectare could be expected. Lower prices or yields will dramatically change this figure. This does not include the grower's labour, nor the fixed costs associated with ownership of the land, equipment, buildings, etc.

The capital you require

Onions are normally grown as one of several crops on a farm, so much of the equipment required usually exists. To establish a six-hectare crop of onions, you will need irrigation equipment (\$60 000). Other equipment, if purchased new, could add up to another \$140 000. Prices for second-hand machinery are about half the new price.

Variable growing costs (seed, fertiliser, chemicals, fuel, power, etc.) are about \$6000 per hectare; a total of \$36 000 for the six hectares.

The farm you need

Soil

A sandy clay loam to clay loam which allows water to drain past the root zone is preferred.

Climate

The climate should be cool and dry. Wind is not a major problem once seedlings are established.

Slope

The land should be virtually flat, as the soil needs to be free of clods and prepared to a very fine tilth. Onions are slow growing, so there is a high risk of erosion.

Water

The quantity of water you require will vary from three to four megalitres (ML) per hectare, depending on time of planting. Good quality water is essential at the seedling stage, so conductivity (salt content) should be less than 1200 microSiemens per centimetre (mS/cm). Onions are more tolerant of salinity during the remaining stages of growth and can tolerate conductivities up to 1800 mS/cm.



Irrigation and water management
Section 4 page 22

Other

The planting site should be free from white rot fungus and have a low weed population.

The machinery you need

Here is a list of the essential equipment required. The prices listed in Table 1 are 1997 estimates only. Prices for second-hand machinery are about half the new price.

Table 1. Price list for machinery

Equipment	New price \$
Tractor (around 45 kW)	45 000
Precision planter	25 000
Fertiliser equipment (spreader)	3 500
Spray equipment	10 000
Cultivation equipment (harrows)	4 000
Bed former	1 200
Tractor mounted fork-lift for field use	13 000
Shed fork-lift	35 000
Solid set irrigation equipment per hectare	10 000
About 80 half-tonne bins per hectare (each)	70

Here is a list of the optional equipment.

Drier	20 000
Scales	2 000
Grader and weighing equipment	50 000 – 100 000

The labour you need

Contract labour may be required for chipping (up to three times during the growing season) and for harvesting.

Other considerations

Growing onions involves handling heavy produce, machinery, irrigation equipment and fertiliser bags. For this you need to be strong and fit. Other work includes seedbed preparation, precision planting, spraying for weed, pest and disease control, fertilising, irrigation and harvest management.

You will need the skills to competently manage the crop, your staff and farm finances. Skill is also required for curing, grading and marketing, if these tasks are not contracted out. The ability to read and understand chemical labels is essential.