



Figure 20. Harvesting wheat in central New South Wales. Many newer machines, like the nearer one, have fully enclosed, air-conditioned cabs.

The average wheat farmer grows about 250 ha, so the scale of farming is large and all operations are fully mechanised. However, few wheat farmers are totally dependent on this crop. Most wheat in rotation with sown pasture and rely on livestock to contribute nearly as much income as wheat.

Apart from a small volume of private and mostly local sales, all wheat is bought by the Australian Wheat Board. The grain is received at numerous storage silos strategically located throughout the wheat belts, mostly at rail sidings. Then it is moved to flour mills and grain-handling terminals at the ports. Drought has caused production to vary in recent years but a peak of 18 million tonnes was achieved in 1978-79. About 70% of the total production is normally exported, making wheat one of Australia's main export commodities.

**OTHER GRAIN CROPS**

**Barley**

After wheat, barley for grain is grown on a larger area (recently, about 2.5 million hectares) than any other crop. A winter crop, it is grown throughout the wheat belts as well as in some areas which are marginally too cool or too wet for wheat.

Barley grain is used for malting and animal feed. Malting barley (mostly used for brewing beer) needs a relatively high and dependable winter rainfall and a long, mild ripening period, and is best grown on light soils of medium fertility. Barley for animal feed can be grown more widely throughout the wheat belts. The best malting barley conditions occur in South Australia and

Table 8. Barley for Grain ('000 ha)

State	1950-51	1965-66	1975-76	1979-80
Queensland	11	137	236	195
New South Wales	3	96	486	445
Victoria	88	78	344	325
Tasmania	1	8	11	11
South Australia	310	444	832	984
Western Australia	24	167	419	523
<b>AUSTRALIA</b>	<b>437</b>	<b>930</b>	<b>2 329</b>	<b>2 482</b>

Sources: Australian Bureau of Statistics—Rural Industries 1969-70, Bulletin No. 8; Crop Statistics, Australia: Season 1975-76; and Crops: Australia: 1979-80.

Victoria and, prior to the 1950s, when barley was mostly sold on the domestic market for malting, 90% was grown in these two States. Since then export markets have expanded and the use of barley for animal feed has increased. This led to a large increase in crop area and expansion throughout the wheat belts (see Table 8). Despite large increases in other States, South Australia is still the largest producer although its relative importance has declined.

In the five years 1975-76 to 1979-80, Australia produced 3 million tonnes of barley a year, of which two-thirds was exported. About 40% of barley for domestic use is of malting quality while most of the remainder is used for animal feed.

**Oats**

Like barley, oats for grain are grown as a winter crop throughout the southern wheat belts. In northern New South Wales and Queensland, oats are mostly grown for green fodder. Even when sown for grain, oats are often

Table 9. Oats for Grain ('000 ha)

State	1950-51	1965-66	1975-76	1979-80
Queensland	7	18	12	12
New South Wales & A.C.T.	135	418	290	349
Victoria	213	391	243	256
Tasmania	9	11	4	7
South Australia	110	184	119	129
Western Australia	237	502	320	370
<b>AUSTRALIA</b>	<b>711</b>	<b>1 525</b>	<b>988</b>	<b>1 123</b>

Sources: As for Table 8.

grazed once or twice during the winter. Since oats do not require a well-prepared seed-bed and have a low nitrogen requirement, they can be sown directly into wheat stubble.

Table 9 shows that the area of oats for grain increased between 1950 and the mid-1960s but then decreased as more land was needed for wheat cropping.

Of the one million tonnes of oat grain produced annually in the period 1975-76 to 1979-80, about 30% was exported. Domestically, most was used for animal feed and only about 7% used for human consumption, mainly as breakfast cereal.

**Grain Sorghum**

Grain sorghum occupies the largest area of all summer-cropland cereals, amounting to about 500 000 ha in recent years (Table 10). The greatest increase occurred during the early 1970s, when wheat cropping was restricted by the quota system; the peak area of about 700 000 hectares was grown in 1972-73.

Table 10. Summer Cereals and Lupins for Grain Australia ('000 ha)

Crop	1950-51	1965-66	1975-76	1979-80
Grain sorghum	69	75	504	519
Rice	15	64	75	116
Maize	69	80	47	54
Lupins (a)	24	n.a.	139	106

(a) Mainly for grain (processing or feed).

Sources: Largely as for Table 8; lupins 1950-51 from Statistical Register of Western Australia for 1950-51.

Grain sorghum is heavily concentrated in Queensland and northern New South Wales, where it is grown, to a large extent, in rotation with wheat and oats, notably in the Darling Downs (see map overleaf). It is the characteristic crop in cleared brigalow land in central Queensland and is also grown in the more coastal areas of that State. It is grown to a small extent in the Ord irrigation area in northern Western Australia and occasionally on a few pastoral leases in the Northern Territory.

Over the five-year period 1975-76 to 1979-80 about one million tonnes of sorghum grain were produced annually, of which between a half and three-quarters was exported. In Australia almost all is used for animal feed.

