

# Weed seed and grain defect identikit

This page contains photo-enlargements of some important defects of grains, and weed seeds of economic importance to Australian grain growers.

Click the buttons to see the photo-enlargements.

You may also find it useful to visit the website of South Australian Cooperative Bulk Handling Limited. See their section on Grading and testing ([□](#)).

## A. Some important defects of grain

Illustrations and comments in the following tables are from Ferns, G. K. *et. al.* (1978), *Australian Wheat Varieties—Supplement No. 1*, CSIRO Australia.

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	Defect	Comment
<a href="#">□</a>	Bin-burnt grains	Heat damage caused by poor storage conditions or improper use of grain dryers
<a href="#">□</a>	Black point	The germ end of the grain is darkened due to attack by certain bacteria and various fungi including <i>Alternaria</i> species
<a href="#">□</a>	Bunt of wheat	Also known as ball smut or stinking smut, <i>Tilletia caries</i> and <i>T. foetida</i>
<a href="#">□</a>	Dark discoloration	This is generally caused by moulds which grow in damp conditions
<a href="#">□</a>	Ergot of wheat	<i>Claviceps purpurea</i>
<a href="#">□</a>	Ergot of ryegrass	
<a href="#">□</a>	Ergot-affected head	
<a href="#">□</a>	Frost-affected grains	These grains are usually distorted and may also appear blue/grey
<a href="#">□</a>	Grains contaminated with bunt spores	
<a href="#">□</a>	Loose smut of wheat	<i>Ustilago nuda</i>
<a href="#">□</a>	Pink discoloration	This is caused by parasitic species of <i>Fusarium</i> and <i>Pyrenophora</i> , which can carry through with the seed to cause disease in the next crop
<a href="#">□</a>	Sprouted grains	The germ covering has split open and the root has emerged

## ***B. Some important weed seeds***

	Common name	Scientific name
<input type="checkbox"/>	charlock	<i>Sinapis arvensis</i>
<input type="checkbox"/>	darnel drake	<i>Lolium temulentum</i>
<input type="checkbox"/>	field bindweed Australian bindweed	<i>Convolvulus</i> spp.
<input type="checkbox"/>	Hexham scent melilotus	<i>Melilotus indicus</i>
<input type="checkbox"/>	Mexican poppy	<i>Argemone</i> spp.
<input type="checkbox"/>	mintweed	<i>Salvia reflexa</i>
<input type="checkbox"/>	onion-weed	<i>Asphodelus fistulosus</i>
<input type="checkbox"/>	saffron thistle	<i>Carthamus lanatus</i>
<input type="checkbox"/>	threehorn bedstraw	<i>Galium tricornutum</i> ( <i>Galium tricorne</i> )
<input type="checkbox"/>	wild oat black oat	<i>Avena fatua</i> <i>A. sterilis</i> subsp. <i>ludoviciana</i>
<input type="checkbox"/>	wild radish jointed charlock	<i>Raphanus raphanistrum</i>
<input type="checkbox"/>	yellow burr-weed yellow iron-weed	<i>Amsinckia</i> spp.