## Lentil Seed for 2025 Retaining, Quality & Sourcing





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# **Retaining seed** Factors that impact seed for quality crops

### Purity

### Germination

- Frost impacts, dessicants, late rain, wrinkling, orange tip, green kernel
- Damaged seeds
- Handling equipment
- Dormancy

### Lentil Variety

Seed size and seasonal variability

### Plant establishment

- Seed vigour
- will every viable seed emerge?
- Diseased (ascochyta blight) seed
- Virus infected seed



# **Retaining seed** Cleaning for purity & germ



#### LENTIL HARVEST SAMPLE:

- Main line quality: Sound plump seeds
  - What will remain after cleaning?
  - Damaged grains? Late frosted grains? Wrinkled/brittle? Weather stained?
  - Check kernel colour? Can be issue if late frosted grain or late rain & issues dessicating crop
- What grain will be screenings?
  - Very small grain, flat frosted/not matured grain, splits, broken
  - Weed seeds to be removed?
    - Best screen sizes for job?
    - o 2mm slots &/or 3.75mm round hole? Scalp screen?
  - Seed cleaning equipment options?
    - o Rotary cleaner
    - Flat screen cleaners with aspiration?
    - Flat screen & gravity table cleaners & aspiration / & colour sorter?



## **Retaining seed** Cleaning for purity & germ





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# Germination



### Germination factors

- Frost impacts, dessication issue with late rain, wrinkling, orange tip, green kernel, avoid use of Sharpen® for seed retention
- Damaged seeds
- Handling equipment
- Dormancy
- $\rightarrow$  germination test clean seed
- $\rightarrow$  wait minimum 1 month post harvest
- $\rightarrow$  plant establishment: consider

vigour test



# Lentil variety: seed size x season

#### **LENTIL GRAIN WEIGHT**

#### **GIA THUNDER LENTIL**

#### **LENTIL GERMINATION**

Lentil seed samples clean %

Grain weight range (g/100 seeds, NVT trials)					
	SA	VIC			
2020	3.0 - 4.3	3.1 - 4.3			
2021	3.3 - 3.9	3.8			
2022	3.4 - 3.9	3.3 - 3.8			
2023	3.4 - 3.9	3.6 - 4.2			

	80-89% germ	90-100% germ			
2016/17	19%	81%			
2017/18	16%	84%			
2018/19	0%	100%			
2019/20	21%	79%			
2020/21	0%	100%			
2021/22	4%	96%			
2022/23	25%	75%			
2023/24	2%	98%			





## Lentil variety: sowing rate 95% germination

GIA THUNDER			<b>GIA THUNDER</b>	0.9	90% establishment
					90% establishment
germination%	95		germination%	95	
p/m2	120		p/m2	120	
p/m2	100		p/m2	100	
	KG/HA	KG/HA		KG/HA	KG/HA
seed weight (g/100 seeds)	SOWING RATE (120 plants)	SOWING RATE (100 plants)	seed weight (g/100 seeds)	SOWING RATE (120 plants)	SOWING RATE (100 plants)
3.0	38	32	3.0	42	35
3.1	. 39	33	3.1	44	36
3.2	40	34	3.2	45	37
3.3	42	35	3.3	46	39
3.4	43	36	3.4	48	40
3.5	44	37	3.5	49	41
3.6	45	38	3.6	51	42
3.7	47	39	3.7	52	43
3.8	48	40	3.8	53	44
3.9	49	41	3.9	55	46
4.0	51	42	4.0	56	47
4.1	. 52	43	4.1	58	48
4.2	53	44	4.2	59	49
4.3	54	45	4.3	60	50
KG/HA range	38 to 54	32 to 45	KG/HA range	42 to 60	35 to 50



## Lentil variety: sowing rate 85% germination

GIA THUNDER				GIA THUNDER	0.9	90% establishment
germination%		85		germination%	85	
p/m2		120		p/m2	120	
p/m2		100		p/m2	100	
		KG/HA	KG/HA		KG/HA	KG/HA
seed weight (g/100 seeds)		SOWING RATE (120 plants)	SOWING RATE (100 plants)	seed weight (g/100 seeds)	SOWING RATE (120 plants)	SOWING RATE (100 plants)
	3.0	42	35	3.0	<b>)</b> 47	39
	3.1	44	36	3.:	L 49	41
	3.2	45	38	3.2	2 50	42
	3.3	47	39	3.3	<b>3</b> 52	43
	3.4	48	40	3.4	<b>1</b> 53	44
	3.5	49	41	3.	5 55	46
	3.6	51	42	3.0	5 56	47
	3.7	52	44	3.7	<b>7</b> 58	48
	3.8	54	45	3.8	<b>3</b> 60	50
	3.9	55	46	3.9	9 61	51
	4.0	56	47	4.0	<b>)</b> 63	52
	4.1	58	48	4.3	L 64	54
	4.2	59	49	4.2	2 66	55
	4.3	61	51	4.3	<b>3</b> 67	56
KG/HA range	9	42 to 61	35 to 51	KG/HA range	47 to 67	<b>39 to 56</b>



# Sourcing lentil seed: PBS Seed Member

### PBSEEDS\*, VIC

#### PBS SA SEED MEMBERS: AG Schilling & Co\*, Modra Seeds, RH Verner & Co

• Order via seed member (bulk or bagged) or local reseller

#### LENTIL VARIETIES AVAILABLE FOR 2025

- GIA Thunder IMI
- GIA Lightning IMI
- GIA Metro MET+IMI
- GIA Leader IMI
- PBA Highland-XT
- PBA Hallmark XT

#### QUALITY ASSURED SEED PROGRAM

- o Varietal traceability
- o Paddock selection & season inspections
- Harvest purity QA protocols
- Specialised seed cleaning equipment (multi-deck flat screen cleaners with aspiration, gravity table cleaners, colour sorter\*, soft handling) and seed cleaning testing QA protocols, Accredited seed samplers, ISTA representative sampling per seed lot
- o Disease tested & IMI tested by independent laboratory
- Follow the Seed Services Australia Seed certification standards for varietal purity, purity, germination, nominated other seeds and prohibited other seeds
- Purity & Germination certificate per seed lot by independent accredited laboratory

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# Sourcing lentil seed: Grower 2 Grower

### **IF GROWER HASN'T GROWN A SPECIFIC LENTIL VARIETY:**

- Grower may register with PBSEEDS to source seed of this variety from another grower ......
  - → If this variety is on the approved list (otherwise source from seed member)

 $\rightarrow$  Know paddock / seed quality

### **PROCESS:**

- Contact PBSEEDS to register: <u>admin@pbseeds.com.au</u>
- Complete *PBSEEDS Seed Register Form* (business details & kg seed of variety)
- Sign Variety Licence Agreement
  & pay (once-off) licence fee invoice (\$250 + GST)

### APPROVED VARIETIES FOR 2024 & 2025:

- GIA Thunder, GIA Lightning, GIA Metro, GIA Leader
- PBA Highland, PBA Hallmark, PBA Hurricane,
- PBA Jumbo2 and all other PBA lentil varieties (except PBA Kelpie)



# **Thank You**





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