

Spring Cereal Seed Rate Calculator 2015

Goldcrop Recommended Seed Rates Based on TGW



Recently released trial results from Teagasc further confirm that a spring barley plant population of approx. 300 plants/m² is required to achieve maximum yield. Such a plant population should in turn produce a canopy of 1000-1100 shoots/m².

In order to calculate the correct seed rate, one will need to know both the TGW (thousand grain weight) and expected Field Establishment rate.

The seed rate per Hectare using a known TGW for a seed batch* is calculated as follows

$$\text{kg of Seed per ha} = \frac{(\text{TGW}) \times (\text{target plant population} / \text{m}^2)}{\% \text{ Establishment}}$$

* Where a specific TGW figure is not available for a seed batch, it is recommended to use the figures quoted in the 2015 Irish Recommended List as shown below

SPRING BARLEY 2015

Targeting 310 established plants/m² (1000-1100 shoots/m²)

Variety	TGW RL 2015	Good conditions 85% Establishment		Fair conditions 80% Establishment	
		kg/ha	Stone/ac	kg/ha	Stone/ac
Crooner*	45.1	164	10.4	175	11.1
Frontier	48.0	175	11.1	186	11.8
KWS Irina	47.8	174	11.1	185	11.8
Mickle	47.3	173	11.0	183	11.6
Paustian	47.8	174	11.1	185	11.8
Propino	50.0	182	11.6	194	12.3
Quench	45.9	167	10.6	178	11.3
Sanette	48.3	176	11.2	187	11.9
Shada	46.3	169	10.7	179	11.4
Soldo	51.3	187	11.9	199	12.6
SY Taberna	47.7	174	11.0	185	11.7

*Crooner TGW based on 3 year average of DOA Official Trials

SPRING WHEAT 2015

Targeting 330 established plants/m²

Variety	TGW RL 2015	Good conditions 85% Establishment		Fair conditions 80% Establishment	
		kg/ha	Stone/ac	kg/ha	Stone/ac
Doubleshot*	45.0	175	11.1	186	11.8
Quintus*	45.4	176	11.2	187	11.9
Sparrow	43.3	168	10.7	179	11.3
Trappe	40.6	158	10.0	167	10.6

*Doubleshot & Quintus TGW based on analysis of Goldcrop processed seed in February 2015

Spring Bean Seed Rate Calculator 2015

Goldcrop Recommended Seed Rates Based on TSW



Goldcrop can supply accurate Thousand Seed Weight (TSW) figures for all seed lots of certified bean seed we supply. The TSW information should be noted on the seed labels / pallet wrapping for each seed lot and will be declared in grams.

To calculate the correct seed rate you need to know the target plant numbers per m² in spring, the TSW for the seed batch and the expected establishment percentage. The seed rate per hectare using a known TSW (thousand seed weight) for a seed sample is as follows:

$$\text{kg of Seed per ha} = \frac{(\text{TSW}) \times (\text{target plant population} / \text{m}^2)}{\% \text{ Establishment}}$$

SPRING FIELD BEANS 2015

Assuming 90% Establishment, and targetting a desired plant population of 30 - 35 plants/m²

Target Plant Population & seed rate	Early sowing (February)		Mid Sowing (First 2 weeks March)		Late Sowing (late March / early April)	
	30 Plants/m ² sowing 33 seeds		33 Plants/m ² sowing 36 seeds		36 Plants/m ² sowing 40 seeds	
TSW	kg/ha	Stone/ac	kg/ha	Stone/ac	kg/ha	Stone/ac
480	160	10.2	176	11.2	192	12.2
500	167	10.6	183	11.7	200	12.7
520	173	11.0	191	12.2	208	13.3
540	180	11.5	198	12.6	216	13.8
560	187	11.9	205	13.1	224	14.3
580	193	12.3	213	13.6	232	14.8
600	200	12.7	220	14.0	240	15.3
620	207	13.2	227	14.5	248	15.8
640	213	13.6	235	15.0	256	16.3
660	220	14.0	242	15.4	264	16.8
680	227	14.4	249	15.9	272	17.3

Where a specific TSW figure is not available for a seed batch, if possible weigh 100 seeds and multiply the result by 10. You can also refer to the PGRO Rec List but that is **quite often not very accurate**.

PGRO Rec List 2015 (UK) Ratings on TSW

Target Plant Population & seed rate	Early sowing (February)		Mid Sowing (First 2 weeks March)		Late Sowing (late March / early April)	
	30 Plants/m ² sowing 33 seeds		33 Plants/m ² sowing 36 seeds		36 Plants/m ² sowing 40 seeds	
Variety (TSW)	kg/ha	Stone/ac	kg/ha	Stone/ac	kg/ha	Stone/ac
Boxer (542)	181	11.5	199	12.7	217	13.8
Fanfare (518)	173	11.0	190	12.1	207	13.2
Fuego (542)	181	11.5	199	12.7	217	13.8