



Spring Bean Seed in 2016 will have a higher Thousand Seed Weight (TSW) than would have been observed in recent years, and consequently growers should ensure to increase seed rates accordingly to achieve the optimum plant population / crop establishment.

Early sowing of beans is usually beneficial from both a yield and earliness of harvesting point of view. However, the risk of seedling loss from crow attack is much higher so keep seed rates up at all times. Equally, recent data from both Teagasc and PGRO trials has shown that increased seed rates on later sown material has given higher yields up to a maximum seed rate of 45 seeds / m²

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:

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

% Establishment

(To convert to stones per acre, divide by 15.7)

SPRING FIELD BEANS SEED RATES 2016

Targetting a desired plant population of 30 - 35 plants/m²
(lower density plant population is best from earlier sowings)

Target Plant Population & seed rate	Early sowing (Jan/Feb) assuming 80% establishment		Mid Sowing (First half March) assuming 85% establishment		Late Sowing (late March/early April) assuming 90% establishment	
	30 Plants/m ² sowing 38 seeds		33 Plants/m ² sowing 38 seeds		36 Plants/m ² sowing 40 seeds	
	TSW	kg/ha Stone/ac	kg/ha Stone/ac	kg/ha Stone/ac	kg/ha Stone/ac	kg/ha Stone/ac
540	203	12.9	210	13.4	216	13.8
560	210	13.4	217	13.9	224	14.3
580	218	13.9	225	14.4	232	14.8
600	225	14.3	233	14.8	240	15.3
620	233	14.8	241	15.3	248	15.8
640	240	15.3	248	15.8	256	16.3
660	248	15.8	256	16.3	264	16.8
680	255	16.3	264	16.8	272	17.3
700	263	16.7	272	17.3	280	17.8
720	270	17.2	280	17.8	288	18.4
740	278	17.7	287	18.3	296	18.9

As a rough guide, each increase of 20g in TSW = 7kgs/ha or 0.5 stone per acre more seed required

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 2016 (UK) Ratings on TSW

Variety (TSW)	Early sowing (Jan/Feb)		Mid Sowing (First half March)		Late Sowing (late March/early April)	
	30 Plants/m ² sowing 38 seeds		33 Plants/m ² sowing 38 seeds		36 Plants/m ² sowing 40 seeds	
	kg/ha Stone/ac	kg/ha Stone/ac	kg/ha Stone/ac	kg/ha Stone/ac	kg/ha Stone/ac	kg/ha Stone/ac
Boxer (559)	210	13.4	217	13.8	224	14.3
Fanfare (538)	202	12.9	209	13.3	215	13.7
Fuego (557)	209	13.3	216	13.8	223	14.2