

### Calculating Pure Live Seed (PLS) and Seeding Rates:

Almost all seed has some non-viable as well as “hard” or dormant seed. Seeding rates should be adjusted to compensate for the seed that will not germinate. Warm season grasses are usually purchased on a Pure Live Seed basis. This means that if you purchase 50 lbs of PLS, you will probably get shipped a bag containing more than 50 lbs of material. PLS is calculated as follows:

$$\% \text{ PLS} = \% \text{ Pure Seed} \times (\% \text{ Germination} + \% \text{ Dormant seed})$$

For example: If you ordered 50lbs of pure live big bluestem seed and the seed tag states:

PLS Calculation:

$$\% \text{ PLS} = \% \text{ Pure Seed [99]} \times (\% \text{ Germination [72]} + \% \text{ Dormant seed [10]})$$

$$\% \text{ PLS} = [.99] \times ( [.72] + [.10] )$$

$$\% \text{ PLS} = .99 \times .82$$

$$\% \text{ PLS} = .81$$

Or Pure Live Seed = 81 %

50 lbs PLS divided by .81 = 61.2 lbs

Your “50 lb” bag of big bluestem seed should weigh 61.2 lbs as shipped.

Seeding Rate Adjustment for PLS:

If the recommended seeding rate is 6 lbs/acre of PLS you need to adjust your actual rate planted:

$$6 \text{ lbs PLS/acre divided by } .81 (\% \text{ PLS}) = 7.4 \text{ lbs/acre.}$$

One would need to plant 7.4 lbs/acre of the seed in the bag to get 6 lbs/acre of pure live big bluestem seed. The material in the bag should cover 8.3 acres.