

Pure Live Seed

Pure live seed (PLS) is a measure used by the seed industry to describe the percentage of a seed quantity that will germinate. PLS is calculated by multiplying the purity percentage by the percentage of total viable seed, then dividing by 100.

Purity is the percentage by weight of the labeled seed species, with the remainder consisting of inert matter, weed seed, or other crop seeds. Total viable seed includes both germinable and dormant seeds. By multiplying these two values, one can determine how much of the material is actually live, viable seed versus non-viable material.

PLS is a way to standardize quality and allow purchasers to compare the value of different seed lots.

Consider the following example:

	LOT A	LOT B
Cost per pound (bulk)	\$1.00	\$1.50
% Purity	75	95
% Germination	60	80
% PLS	45	76

At first glance, Lot A may seem like a better buy because it costs only \$1.00 per bulk pound, while Lot B costs \$1.50. However, Lot B is of higher quality. To compare their value accurately, calculate the cost per PLS pound.

$$\text{PLS Cost} = \text{Bulk Cost} \times 100 \div \% \text{ PLS}$$

Using the formula above, the cost of Lot A is \$2.22 per PLS pound, while Lot B costs only \$1.97 per PLS pound. Therefore, Lot B represents better value. Additionally, because Lot B has a higher PLS percentage, less seed is required to achieve the same results, potentially reducing labor costs.