

## **PLANT QUALITY SEED WALLA WALLA COUNTY, WA**

### **GENERAL STATEMENT**

Always use high quality seed. Grass seed of good quality germinates well, has a high purity percentage, has excellent germination and is free of weeds.

Purity, inert matter, weed seed, other crop seed and hard seed percentages are shown on the seed tag – they add up to 100%.

- **Purity** – is the percentage of seed without dirt, dust, chaff, straw, empty kernels, weeds, other crop seed and other foreign matter.
- **Inert Matter** – is the percentage by weight of broken seeds one half or less in size and all other dead foreign material.
- **Weed Seed** – is the percentage by weight of seeds considered weeds by law. Do not accept seed containing any noxious weeds.
- **Other Crop Seed** – are those seeds other than the specified seed as labeled.
- **Hard Seed** – are those of the labeled seed that remain sound but do not germinate at the end of the germination test periods. They may germinate later.
- **Germination** – is the percentage of the pure seed which has started to grow by the end of the specified germination test period. Germination declines with the age of the seed, the variety or cultivar, and the storage conditions. Always check the date of the test. It is not legal to sell or offer seed for sale in Washington, unless it has been tested for germination within the last six months.
- **Pure Live Seed** – considers both purity and germination and is a real indicator of seed quality. It is determined by multiplying the purity times the germination and dividing by 100.

$$\frac{\text{Purity} \times \text{Germination}}{100} = \text{Percent Pure Live Seed (PLS)}$$

**For more specific recommendations on the establishment of permanent cover, contact the local USDA-Natural Resources Conservation Service (NRCS) office or Walla Walla County Conservation District (WWCCD) at 325 North 13<sup>th</sup> Avenue, Walla Walla, WA or phone 509-522-6340 Ext. 3.**

By: Larry L. Hooker  
Ag. Projects Coordinator  
WWCCD

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## WHAT IS THE REAL COST OF SEED THAT WILL GROW (PLS)

The real cost of seed that will grow (PLS) is determined by dividing the price per pound by the percentage of PLS:

Seed Lot A: Perennial grass seed @ \$0.90 per lb.

$$\frac{\text{Purity } 99.9\% \times \text{Germination } 90\%}{100} = 89.55\% \text{ PLS}$$

\$0.90 divided by 0.8955 = \$1.01 per lb. of seed that will grow

Seed Lot B: Bargain perennial grass seed @ \$0.70 per lb.

$$\frac{\text{Purity } 93.3\% \times \text{Germination } 60\%}{100} = 55.8\% \text{ PLS}$$

\$0.70 divided by 0.558 = \$1.25 per lb. of seed that will grow

**Moral?** Buy Good Seed! Calculate its cost on the basis of seed that will grow.

- Standard seeding rates are based on good quality seed. Seed lots never reach 100% PLS. Good quality seed is generally above 95% in purity and above 85% in germination.

$$\frac{95\% \times 85\%}{100} = 80.5\% \text{ PLS}$$

- When PLS falls below 80% because of age or excessive inert matter, some upward adjustment in seeding rates should be made. For this purpose, the following table is useful:

1. Determine the PLS percentages

Multiply the desired seeding rate by the factor opposite the PLS column. Example: If the desired seeding rate is 8 lbs. per acre and the PLS percentage is 72%, then multiply 8 X 1.39 = 11.1 lbs. per acre which is the seeding rate you should use.

PLS	Factor	PLS	Factor	PLS	Factor
79	1.27	69	1.45	59	1.70
78	1.28	68	1.47	58	1.73
77	1.30	67	1.49	57	1.76
76	1.32	66	1.52	56	1.79
75	1.34	65	1.54	55	1.82
74	1.35	64	1.56	54	1.85
73	1.37	63	1.59	53	1.89
72	1.39	62	1.62	52	1.92
71	1.41	61	1.64	51	1.96
70	1.43	60	1.67	50	2.00