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Suggestions for Seed Handling for Maximum Production

by

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Because of the concern being expressed throughout the Washington potato industry about low temperatures last fall in much of the seed producing areas it is appropriate to review how to handle seed when it arrives at your storage.

Before addressing that it should be acknowledged that 1) not all seed for all operations is likely to have been harvested before the temperatures dropped and 2) the storage conditions and management of seed storage following harvest are especially critical for seed exposed to low temperatures. There are some very important questions you should have answered about the seed you will receive.

1. When was it harvested?
2. What was the temperature level in the storage during the early part of the storage season? Was wound healing and maturation allowed to take place?
3. Was the seed handled during the storage season, i. e. was it moved to clean it?
4. Was it washed?
5. Was it treated with mertec when it went into storage?

Regardless of the answers to the above questions seed should be given special attention this spring. This special attention include the following:

1. Assure that in transit temperatures are maintained at a desirable level (40-45 when at all possible).

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2. Minimize dropping of tubers on arrival and throughout the cutting and planting operations.
3. Be sure seed piece size is appropriate, ask the seed handler or yourself if you do your own cutting to show you data on seed size distribution, not just the average size of seed. One half ounce seed pieces and 2-1/2 oz. seed pieces average 1-1/2 oz. Seed pieces under 1 oz. are undesirable and should be discarded. There is no additional value of seed pieces over 2 oz. in size.
4. Hold seed cool enough to prevent excessive sprouting after arrival. Avoid excessive warming of seed.
5. Warm seed to 45 or above long enough before cutting to have eyes "piped" when cut.
6. Plant immediately after cutting (same day if possible).
7. Plant into soil that is 45 or above.
8. Have soil moisture at 60% of field capacity or higher at planting. Soil profile should be full. Pre-irrigate before planting.
9. Be sure fertilizer placement and rate is correct to avoid salt concentration that could retard emergence.
10. Obtain accurate seed placement (avoid skips) - as with seed size average spacing isn't enough, a 5" and a 15" spacing equals 10" average. Strive for placement not more than 2" either side of desired spacing.
11. Prevent wind erosion from cutting off established plants. Some seed pieces may not have enough energy for resprouting.
12. Don't injure sprouts or plants during post planting cultural practices.
13. Exercise extra care when applying pesticides. Errors in rate or placement could result in loss of plants from additional stress.
14. Be especially prudent in post emergence irrigation. Both timing and amount, avoid both over and under application.
15. Consider seed treatment. Seed treatment is not assurance but insurance. This may be the year to have it.