

Ceres  
**Crusader**  
Italian Ryegrass

- **Rapid establishment and vigorous early growth**
- **Later maturing for leafy growth of quality feed**
- **Lower cost per acre**
- **Certified variety with genetic stability and proven performance**

**NEED EARLY  
GROWTH?**

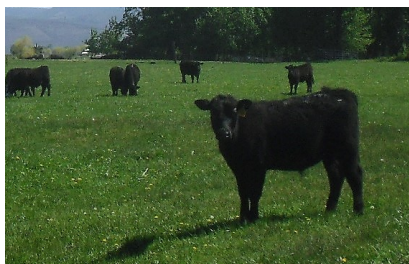
**Crusader** is a late maturing, diploid biennial ryegrass. It has high tiller density, excellent heat tolerance and extraordinary regrowth. This translates to dense, fast growing, high quality grazing and hay production.

**Crusader** is a diploid ryegrass and has more seeds per pound than a tetraploid ryegrass. Therefore to achieve the same plant numbers per acre as that of **Crusader**, the seeding rate of a tetraploid ryegrass must be double. As a ryegrass, it is the most cost effective option compared to annuals and tetraploids. **Crusader** is a low cost per acre alternative because it will persist longer in hot, dry climates for quality, late summer production.

In mild climates, fall planted **Crusader** will grow through the winter and continue into spring for extended grazing and silage production.

**Crusader** has an established reputation as the complementary grass to existing alfalfa production in the Intermountain and Great Basin irrigated hay regions. An example mixture is that of **Crusader**, red clover, and Tonic plantain paired with any alfalfa stand.

An over seeding of **Crusader** into irrigated pasture is a simple, cost effective and valuable solution to maintaining feed quality. A mixture of Tonic plantain, Hunter brassica, and **Crusader** is a proven way to supply highly digestible forage to finishing and dairy grazing systems from late summer through fall.



### Sowing Recommendation

Italian ryegrass upgrade with certified genetics

<b>Crusader Italian Ryegrass</b>	<b>5 lb/ac</b>
<b>Oahu Perennial Ryegrass</b>	<b>10 lb/ac</b>
<b>Total</b>	<b>15 lb/ac</b>

Success in a grazing crop or perennial pasture requires a study of its critical components, including the associated total costs. Price should be considered when buying seed but it should not be the deciding factor. As show in the example below, low cost seed does not equal low cost per acre. In this instance seed costs can be as low as 20% of the initial investment. **Crusader** is a certified variety and when you buy certified, you are buying reliability. It ensures that the seed is true to type and has met strict standards. You are receiving more than just low cost. A price quote does not help you with designing what fits and what works for your farm. PGG Seeds exemplifies the adage "quality is long remembered after price is forgotten."

Ryegrass Type	Approx. Seeds / lb	Seed / lb (%) fewer than Crusader	Seeding rate (lb / acre) to achieve equal plant numbers	Indicative Price / lb \$USD	Price / lb (%) less than Crusader	Price / Acre \$USD	Indicative Price / acre (%) MORE than Crusader
<b>Crusader Diploid Italian Ryegrass</b>	<b>227,000</b>	<b>-</b>	<b>12</b>	<b>1.65</b>	<b>-</b>	<b>19.80</b>	<b>-</b>
<b>Tetraploid Italian Ryegrass</b>	<b>118,000</b>	<b>48%</b>	<b>18</b>	<b>1.25</b>	<b>24%</b>	<b>22.20</b>	<b>12%</b>
<b>Tetraploid/Diploid Italian Ryegrass Blend*</b> Assuming 50/50	<b>172,000</b>	<b>24%</b>	<b>15</b>	<b>1.50</b>	<b>9%</b>	<b>22.36</b>	<b>12%</b>

*"Crusader is quick, cheap and easy to over-seed with an ATV in the spring."*

- Rob Seymour, Tillamook county, OR

*"We plant Crusader into alfalfa, spring and fall. It pays in tonnage and quality."*

- Ian Newman, Moses Lake, WA

**Seeding Rate: 12 lb/ac; Mix, 5 lb/ac**

**Planting Time: March-Aug**

**Regions: All**

**1st Grazing: 60d**

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**PGG** seeds

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