

## **SALINITY COVER**





## The Managing Salinity Blend

High soil salinity is present because the water table is too close to the soil surface. As soil EC increases, its effects are amplified because crop water use decreases as crop growth decreases. The problem "feeds on itself" because salinity breeds more salinity due to low crop water use at the fringes of the high salinity area. The importance of having something growing (a living root) that is tolerant to the salinity present cannot be overemphasized.

#1 Agronomic Tip: Sow perennial plant species down with annual plant species to increase establishment success rate.



Annual Plants: Light Blue Perennial Plants: Dark Blue



## EC LEVELS & PLANT SPECIES SELECTION

The soil test used to characterize saline soils from non-saline soils is the soil EC test. The EC is the acronym for Electrical Conductivity, which is the laboratory method relating the electrical conductivity of a "current" through soil with salts in the soil solution. If the EC 1:1 of your soil test is greater than 3 mmhos/cm, consider a blend of annual & perennial plant species.

- Annual Plant Species: have been selected based on their EC tolerance
- Perennial Plant Species: have been selected based on their EC tolerance.

NDSU WARTE DANGFATTY % Yield Reduction Due to Salts					
Forage	Threshold salinity, EC 1:1 mmhos/cm	10 mmhos/cm ne	30 cessary to reduc	100 ce relative yield	Reference
Alkaligrass Nuttal	6.3	7	8.5	13.5	Riedell, 2008
Alkali sacaton	6.3	6.9	8.0	12	Grattan, 2004
Bromo, smooth	2.3	2.6	3.0	4.5	McElgunn and Lawrence, 1973
Fescue, tall	3.6	4	5.0	8.1	Bower et al., 1970
Foxtail, Garrison Creeping	6.2	6.9	8.3	13.5	Riedell, 2008
Grama, blue	2.7	3.0	3.5	5.4	U.S salinity Lab 1954
Ryegrass, perennial	2.6	3.3	6.5	10	Brown and Bernstein, 1953
Wheatgrass, Green AC Saltlander	4.0	5.0	6.0	14.0	Steppuhn et al., 2006
Wheatgrass, fairway crested	2.7	1	1.75	2.5	McElgunn and Lawrence, 1973
Wheatgrass intermediate	2.7	3.0	3.5	5.4	Dewey, 1960
Wheatgrass slender	4.5	5.0	6	9.0	McElgunn and Lawrence, 1973
Wheatgrass tall	5.9	6.5	8.0	14	Riedell, 2008
Wheatgrass western	2.7	3.0	3.7	7.2	U.S salinity Lab 1954
Wildrye, beardless	5.9	6.4	7.7	11.7	Brown and Bernstein, 1953
Wildrye, canadian	4.5	5.4	7.2	14.2	U.S salinity Lab 1954
Wildrye, russian	5.9	6.4	7.4	11	McElgunn and Lawrence, 1953

## 2023/2024 PRICING & EARLY PURCHASE DISCOUNT

FCC & Scotiabank Financing Available. Please reach out to your local dealer to secure your seed. Or your provincial Territory Manager if you have any further questions.

- o Early Purchase: Reach out to your Provincial Territory Manager
- In-season Pricing: Reach out to your Provincial Territory Manager

\*Early Purchase Deadline: March 15th, 2024



