

Application Guidelines for Small Grains

Small Grains

Winter Wheat and Spelt

Preplant application- Residue management program

Per acre application- (apply on crop trash or green manure)

1-2 gal	Drammatic "ONE" Liquid Plant Food
1 gal	AER SP-1 (microbial extract)
1 gal	Molasses
1 gal	Humic Acid
2 qts	Organic Trace Mineral pack
1 gal	Solubor
10 gal	water

optional – 3-7 gal Chilean Nitrate

Springtime application - Foliar Feeding Program

First Application- Breaking dormancy

Per acre application

2 gal	Drammatic "ONE" Liquid Plant Food
1-7 gal	Chilean Nitrate *
2 qts	Organic Trace Mineral pack
1 gal	AER SP-1 (microbial extract)
20 gal	water

optional- 25-50# Dry Chilean nitrate broadcast prior to tiller stage

Second application- Flag leaf stage

Per acre application

2 gal	Drammatic "ONE" Liquid Plant Food
3-7 gal	Chilean Nitrate
1 gal	AER SP-1 (microbial extract)
2 qts	Organic Trace Mineral pack
20 gal	water

Oats- Barley- Spring Wheat

CROP MAINTENANCE-Foliar Feeding Program prior to boot stage

First Application – 6-8 inches tall

Per acre application

2 gal	Drammatic "ONE" Liquid Plant Food
3-7 gal	Chilean Nitrate *
1 gal	AER SP-1 (microbial extract)
2 qts	Organic Trace Mineral pack
20 gal	water

Second application- Flag leaf stage

Per acre application

2 gal	Drammatic "ONE" Liquid Plant Food
3-7 gal	Chilean Nitrate *
.5 gal	AER SP-1 (microbial extract)
2 qts	Organic Trace Mineral pack
20 gal	water

***Chilean Nitrate-** Chilean nitrate is an organic form of nitrate nitrogen and will be taken up into the plant in very cool spring conditions. This will introduce nitrate nitrogen to the plant before microbial activity is maximized

NOTE: Chilean Nitrate is NOP listed with annotations (limited to 20% the required amount of nitrogen). It is not approved for IFOAM or GOA export markets.

CROP STRESS MANAGEMENT

Plant Stress Insects (Aphids and Leaf Hoppers)

Biological Insect Suppression Program The use of biological inputs to suppress insects should be considered when the nutrient management program is deficient

Insect suppression package

DE effective against cutworm, seed corn maggot, rootworm beetle larva and wireworm

Neem Oil is effective against aphids, wheat midge, leaf hoppers, armyworm and cutworm

Mycotrol O (beauverria bassiana) is effective for hard shell and soft shell insects.

Bacillus Thuringiensis (BT) is effective for soft shell insects

Garlic oil GP Aid to repel aphids, midge and leaf hoppers

Insect Suppression Foliar Feed Program

Per acre Application

2 gal Drammatic "ONE" Liquid Plant Food

10 oz Neem Blend

20 gal water

optional 1-2 # Magnesium Sulfate (Epsom Salt)***

Plant Stress Suppression of Plant pathogens (healthy plant theory)

Per acre application

2 gal Drammatic "ONE" Liquid Plant Food

.5 gal AER SP-1 (microbial extract

2 qts Organic Trace Mineral pack

4 oz Neem oil emulsified

2 oz Citrex (ascorbic acid) plant conditioner

20 gal Water

What about soil fertility

Cutworm and corn borer infestation is generally higher in high magnesium, low available calcium soils. Boron deficient soils complicate the problem because of reduced calcium uptake.

Adequate zinc levels reduce plant stress and thus insect populations.

Plant Stress Cold Spring Weather

This formula is an aid to have small yellowing legumes, grasses and grains bounce back when the natural soil magnesium is tied up in the cold soil in spring and early summer.

Per acre application

2 gal Drammatic "ONE" Liquid Plant Food

3-7 gal Chilean Nitrate*

.5 gal AER SP-1 (microbial extract

2 qts Organic Trace Mineral pack

1-2 # Magnesium Sulfate (Epsom Salt)***

20 gal Water

***** Magnesium sulfate (Epsom Salt)*****

Dissolve magnesium sulfate crystals (Epsom salt) in a clean barrel and warm water. Do not add directly to spraying tank. Keep agitating when added to sprayer to avoid settling.

Caution: The undissolved MAGNESIUM SULFATE crystals will plug nozzle tips. Further, make sure the Epsom salt does not have a sand base carrier. This form of Epsom salt is generally a fertilizer grade product. Use feed grade Magnesium Sulfate

For years this formula has been used to reduce the stress on cold, high magnesium soils and other cold, wet soils. In these conditions the soil magnesium is, nutritionally, not available to the plant. With a single application the new foliage will generally have new color and vigor.

Neem oil, Garlic Oil and Mycotrol O are EPA registered bio-pesticides