PIONEER® BRAND

11G22 ALFALFA/GRASS/CEREAL SILAGE INOCULANT

RAPID REACT® AEROBIC STABILITY

PIONEER®

Pioneer® brand 11G22 is an alfalfa/grass/cereal silage inoculant with next-generation *L. buchneri* designed to:

- Enhance fermentation in grass and whole plant cereal silage and deliver improved fermentation and a fermentation acid profile that minimizes aerobic dry matter losses
- Be used in grass and whole plant cereals ensiled at the proper maturity in upright, bunker or bag silos and at a dry matter between 30% and 42%

Available as a water-soluble product in packaging suitable for use in tank mixes or with the Pioneer Appli-Pro® systems for easy and convenient application.

11G22 contains a unique blend of patented and/or proprietary strains of *Lactobacillus buchneri* and *Lactobacillus plantarum* formulated to:

- Improve silage quality providing low terminal pH and desirable VFA profile for decreased fermentation loss and enhanced aerobic stability
- Improve animal performance

Includes Rapid React® aerobic stability technology. This provides improved bunklife and stable feed in 7 days.*

Available in Package Sizes: 	
X	**Improves fermentation and reduces dry matter loss**
X	**Improves nutrient conservation**
X	**Significantly reduces heating on bunker/pile face**
X	**Helps reduce heating in entire TMR**
	Improves fiber digestibility

IMPORTANT: Information and ratings are based on relative comparisons with other Pioneer® brand inoculants within each specific crop, not competitive products. Information and ratings are assigned by Pioneer Forage Additive Research, based on average performance across area of use under normal conditions, over a wide range of both environment and management conditions, and may not predict future results. Product responses are variable and subject to any number of environmental and management conditions. Please use this information as only part of your product positioning decision. Refer to www.pioneer.com/inoculants or contact a Pioneer sales professional for the latest and most complete listing of traits and scores for each Pioneer® brand product. Fermentation – rate and extent of pH decline and the composition of fermentation acids occurring in silage. Bunklife – relative heat development compared to ambient temperature. Bunklife considers both how quickly silage begins to heat and the amount of heat generated while remaining above ambient temperature. Fiber Digestibility – the digestibility of neutral detergent fiber (NDF) by the ruminant animal expressed as a percentage of the total NDF.

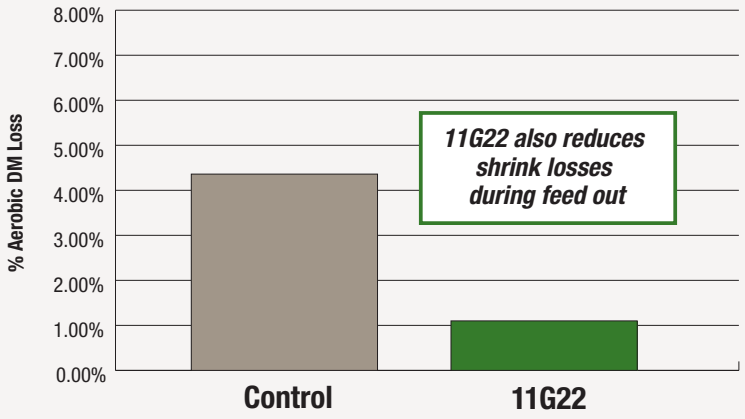
*Disclosure: Improved aerobic stability and reduced heating is relative to untreated silage. Actual results may vary. The effect of any silage inoculant is dependent upon management at harvest, storage and feedout. Factors such as moisture, maturity, chop length and compaction will determine inoculant efficacy.

pH and Aerobic Stability Trials

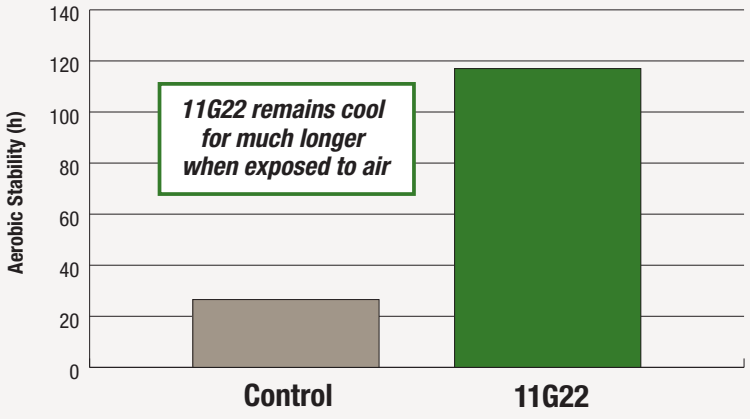
Inoculated and Untreated Grass Silage

Item[1,2]	Control	11G22
DM, %	39.55	40.03
pH	4.83	4.86
DM recovery, %	89.51[a]	92.84[b]
Aerobic stability, hours	25.50[a]	116.25[b]
Aerobic DM loss, %	4.37%[b]	1.07%[a]

Shrink Loss in Grass Silage



Grass Silage Effects on Bunklife When Subjected to Air



Source: Pioneer Livestock Nutrition Center, Iowa. Dry matter recovery, aerobic stability, and nutrient composition were determined for uninoculated (Control) grass silage and for grass silage inoculated with Pioneer® inoculant 11G22 Grass/Cereal Silage Inoculant (11G22).

[1] All values are expressed as least squares means

[2] Dry matter loss as measured during the aerobic stability test.

[a,b] Treatment means in same row without a common superscript letter differ ($P < .05$).

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