PIONEER® BRAND

11A44 GRASS, WHOLECROP, MAIZE AND CRIMPED GRAIN SILAGE INOCULANT

Pioneer® brand 11A44 contains a proprietary strain of *Lactobacillus buchneri* designed to:

- Dramatically reduce heating
- Offer a biological solution without the health risk associated with applying acids and acid salts
- Reduce yeasts and moulds to just 0.1 % of untreated control silages
- Maintain aerobic stability in maize and cereal wholecrop silage for longer than silages treated with 5 litres of proprionic acid.

When to use Pioneer® 11A44:

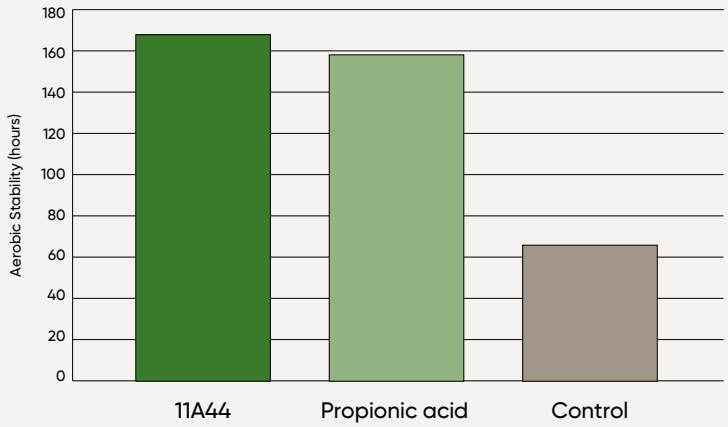
- Grass silage 25% - 45% dry matter
- Fermented wholecrop cereal silage 25% - 45% dry matter
- Maize silage 25% - 45% dry matter
- Crimped maize and cereal grains <65 % dry matter

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.

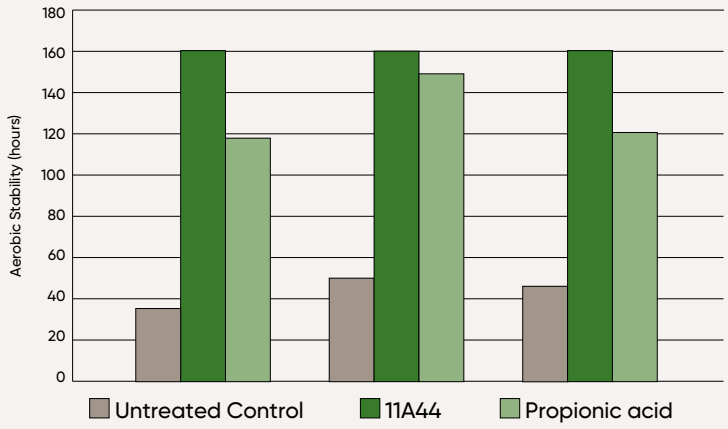
Available in Package Sizes: 50T 250T	
X	**Improves fermentation and reduces dry matter loss**
X	**Improves nutrient conservation**
X	**Significantly reduces heating at the silage face**
X	**Helps reduce heating in entire Total Mix Ration (TMR)**
X	**Improves fibre digestibility**

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. 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. Aerobic Stability – relative heat development compared to ambient temperature. Aerobic Stability considers both how quickly silage begins to heat and the amount of heat generated while remaining above ambient temperature. Fibre Digestibility – the digestibility of neutral detergent fibre (NDF) by the ruminant animal expressed as a percentage of the total NDF.

Aerobic stability of PIONEER® 11A44 treated high dry matter grass silage compared with proprionic acid treated and untreated control



Aerobic stability of PIONEER® 11A44 treated wholecrop cereal silage compared with proprionic acid treatments and untreated controls



Aerobic stability of PIONEER® 11A44 treated maize silage compared with proprionic acid treated and untreated control

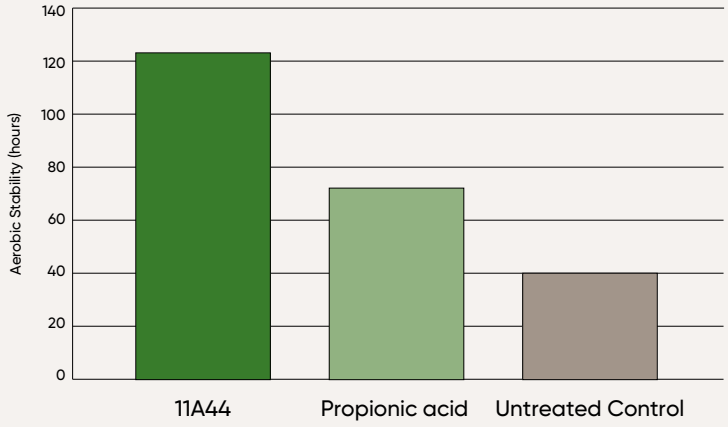


Chart 1: Source: Pioneer

Chart 2: 3 Trials, **Source:** Pioneer

Chart 3: Average 8 Trials, **Source:** Pioneer

PIONEER®

Pioneer® Brand Inoculants

Pioneer proprietary silage inoculants continue to provide those striving to make high quality silage with unique products that reduce silage dry matter losses and improve silage quality.

Mode of Actions	Product	Forage	Purpose
Unique Fibre Technology	**11GFT**	Grass and wholecrop cereal silages	Fermentation, animal performance and fibre digestibility, aerobic stability
	11CFT	Maize silage	Fermentation, animal performance and fibre digestibility, aerobic stability
	11AFT	Alfalfa/lucerne silage	Fermentation, animal performance and fibre digestibility, aerobic stability
	11CH4	A wide range of high dry matter silages	Aerobic stability and gas production
Traditional Technology with Rapid React	PIONEER® **11G22** RAPID REACT® AEROBIC STABILITY	High dry matter grass, wholecrop cereal and pea/cereal silages	Fermentation, animal performance and aerobic stability
	PIONEER® **11C33** RAPID REACT® AEROBIC STABILITY	Maize silage	Fermentation, animal performance and aerobic stability
	PIONEER® **11B91** RAPID REACT® AEROBIC STABILITY	Crimped maize grain	Fermentation, animal performance and aerobic stability
	PIONEER® **1188**	Grass silage below 30% dry matter	Fermentation and animal performance
	PIONEER® **11A44**	A wide range of high dry matter silages	Aerobic stability