

NOTMAN PASTURE SEEDS

SINCE 1987 



MAIZE HARVEST 2023
Gippsland & South West Victoria

NOTMAN PASTURE SEEDS

**Supporting
your farm,
delivering
real farm
value and
know how**



**Agromy
advice**



**Grazing
solutions**



**Experienced
corn growers**



**Healthy
crops**

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Ideal harvest drymatter content is 30-38% (35% ideal for dairy cattle)
Wet maize silage is considered under 30%

While whole plant dry matter and kernel milk line are independently useful tools to time harvest, they are best utilized together. Optimal harvest timing is when kernels are as mature as possible while maintaining enough whole plant moisture to achieve good compaction and fermentation in storage. **However this isn't always achievable, so here are our top tips to early silage harvest.**

Is the maize ready for harvest?

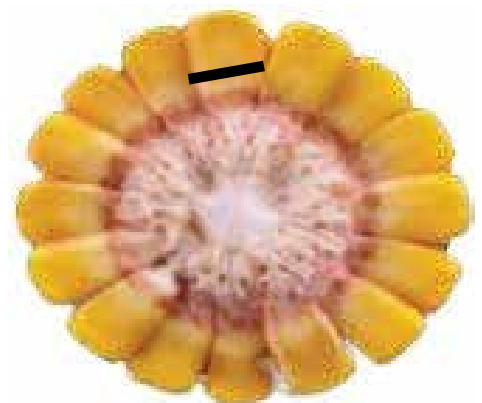
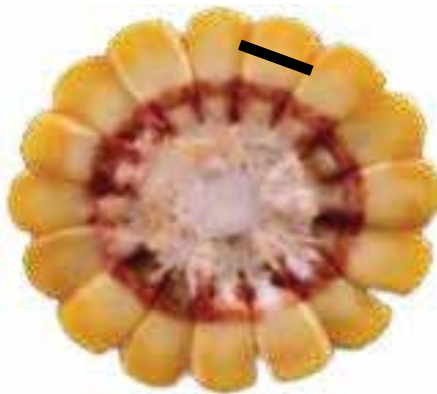
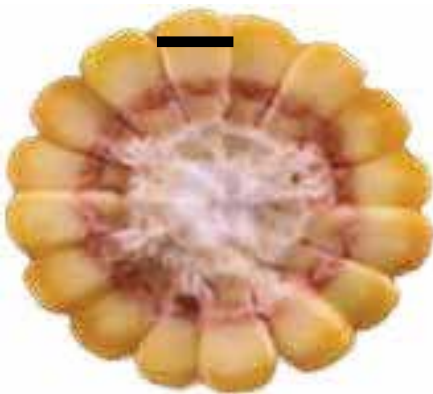
Two thirds milk line not achievable?

The milk line test is an indication that harvest time is near. The maize will be ready for harvest when the milk line is two thirds of the way down the kernel. From indentation this is achieved in 21 - 30 days.

1/4 Milk line

1/2 Milk Line

3/4 Milk Line



Black layer



Typical dry down & starch deposit

It is typical for the entire plant to dry down 0.5-1.0 percentage points of moisture per day, depending upon weather conditions.

“These percentage points could very well be less on a season like this, so dry down expectations could likely be slower.”

It is also typical for healthy corn plants to deposit 0.5-1.0 percentage points of starch in corn silage every day until the kernel reaches physiological maturity (black layer). It is starch deposition, rather than the drying of stalks/leaves, which reduces moisture in maturing, healthy corn plants.

Ensure that chop length matches crop dry matter content

Wet crops (<30% dry matter) should be chopped at 18 - 20 mm theoretical chop length to reduce the risk of run-off from the silage stack.

Lift the cutter bar

The bottom part of the plant contains a significant amount of moisture. While lifting the cutter bar on the forage harvester will reduce yield, it will also increase the dry matter content of the material that is harvested. This improves the chance of a quality fermentation and decreases the amount of effluent run-off. Research has shown that lifting the cutting height from 100 mm to 300 mm increases silage dry matter by 1.5% but decreases yield by 1 tDM/ha.



Inoculant designed for fibre digestability - 11CFT

Immature crops have high sugar levels and are more susceptible to poorer aerobic stability. Immature crops will have higher stover (leaf) and fibre content. To use more energy from the fibre available we would use 11CFT which is designed to improve fibre digestability NDF with its two unique strains *Lactobacillus plantarum* and *Lactobacillus buchneri*. 11C33 can also be used which will also improve fermentation quality and reduce the risk of heating at feed-out time. While silage inoculated with 11C33 can be fed immediately after harvest, maximum aerobic stability gains will be made when it is fermented 30 days prior to feeding.

Turn off the plant processor.

Immature crops will have a reduced amount of starch that is very soft. Processing will result in stover cell damage resulting in increased silage effluent.

Employ good harvest and stack management techniques

Ensure that the material is harvested as quickly as possible. Compact it well but do not over compact as this will increase effluent run-off. Ensure the stack is well sealed and covered as per usual management. Careful feed-out management (e.g. keeping the stack face tight at feed-out time is also critical).

Impacts on early harvesting

1. Maize silage yield increases rapidly during the 6 - 8 weeks prior to the ideal harvest point (30 - 38% dry matter) as grain yield accumulates.
2. Early harvested crops produce less yield. Silage quality may also be reduced due to slightly lower plant nutrient levels and/or poorer fermentation quality.
3. Silage quality may also be reduced due to slightly lower plant nutrient levels and/or poorer fermentation quality.

11CFT

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Recommended for me

11CFT

Corn Silage Inoculant with
Nutrivail® Feed Technology



SCAN FOR
MORE INFO

Contains live lactic acid-producing bacteria specifically selected to assist in the production of high quality corn silage.

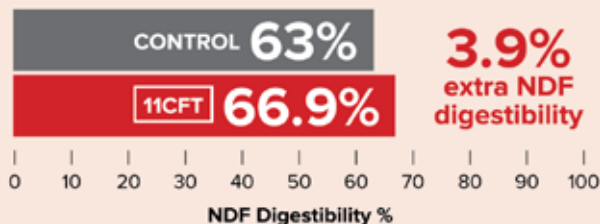
Corn silage specific

- ✓ Corn specific
- ✓ Improves fermentation & fibre digestibility
- ✓ Increases dry matter recovery & animal performance
- ✓ Reduces heating (aerobic spoilage)
- ✓ Feed out one day in advance
- ✓ Maximize return on silage

NUTRIVAIL.
FEED TECHNOLOGY

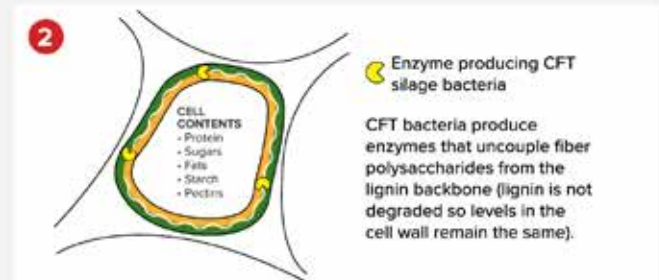
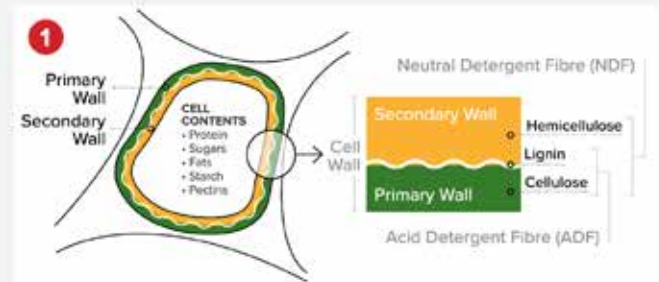
PRODUCT	11CFT
Crop	Corn
Fully researched and proven	✓
Improved fermentation	✓
Aerobic stability	✓
Improved fibre digestibility	✓

Improved NDF digestibility with 11CFT

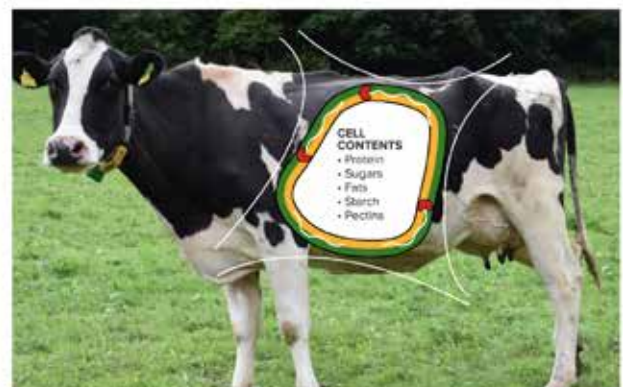


How does CFT work?

Proprietary, novel *L. Buchneri* bacteria produce enzymes (ferulate and acetyl esterases) which modify cell wall fibre (decoupling it from lignin) in the storage structure allowing more extensive fibre digestion when the silage is degraded by rumen bacteria.



3 Rumen bacteria now access and digest fiber polysaccharides more extensively. Rumen bacteria



11C33

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Recommended for me

11C33

Corn Silage Inoculant with Rapid React™ Aerobic Stability



SCAN FOR
MORE INFO

Dual purpose inoculant with live lactic acid-producing bacteria.

Corn silage specific

- ✓ Corn specific
- ✓ Improves fermentation
- ✓ Increases dry matter recovery & animal performance
- ✓ Reduces heating (aerobic spoilage)
- ✓ Feed out one day in advance
- ✓ Maximize return on silage
- ✓ Easily manage large pitface
- ✓ Feed out in 7 days

RAPID REACT.
AEROBIC STABILITY

PRODUCT	11C33
Crop	Corn
Fully researched and proven	✓
Improved fermentation	✓
Aerobic stability	✓
Improved fibre digestibility	



Using silage inoculants to improve the quality of pasture and maize silage

Proceedings of New Zealand Grasslands Association 73:75-80

Table 1
Maize silage analysis after 60 days of ensiling (average of eight trials).

Treatment	DM %	pH	Aerobic Stability (hours)	Aerobic Loss (%)	Lactic Acid (%DM)	Acetic Acid (%DM)	Propandoil (%DM)
Untreated	33.8	3.76	39.3	6.76	5.30	1.27	0
Biosil	33.3	3.76	38.7	6.61	5.35	1.29	0
Si Lac Extra	32.6	3.76	38.3	7.39	5.41	1.31	0
Pioneer 11C33	32.2	3.76	94.8	4.52	5.65	1.62	0.29
SEM	1.03	0.007	10.4	1.17	0.029	0.014	0.006

Table 2
Lactic acid, acetic acid and ammonia-N (NH₃-N) in pasture silage ensiled in vacuum pack silos for 60 day (av of six trials).

Item	Untreated	Biosil	Si-Lac Extra	Sil-All 4x4	Silage King	Pioneer 1174	SEM
Lactic Acid	6.44	6.27	6.48	5.97	6.61	7.97	0.67
Acetic Acid	1.64	1.66	1.85	1.6	1.74	1.02	0.27
Lactic Acid/Acetic Acid	4.92	4.49	4.41	4.59	4.68	7.97	1.15
NH ₃ -N	0.132	0.122	0.117	0.121	0.118	0.098	0.018

Results

“Pasture silage Pasture composition at ensiling averaged 39.2% DM (31.1 - 47.5%), 15.1% DM soluble sugars (13.0 - 16.8), 9.3% ash (7.9 - 10), 11.6% crude protein (8.4 - 16.1), 44.7% NDF (42.6 - 47.8), 10.9 MJ ME/kg DM (10.3 - 11.6).

Silage quality after 60 days of fermentation (Table 2) indicate increased ($P<0.01$) lactic acid, a reduced acetic acid concentration and improved lactic to acetic acid ratio in silage treated with Pioneer 1174. Other inoculants did not differ from the control. Ammonia nitrogen (NH₃-N), which indicates proteolysis which leads to lower feed value for the silage was lowest ($P<0.01$) in silage treated with Product H. Sil-Lac and Silage King also reduced ($P<0.01$) ammonia-N levels compared with untreated silage, but levels were still greater than silage treated with 1174.”

Conclusion

“It is difficult for farmers to evaluate inoculant effectiveness on-farm. Good purchase decision should be based on the results from published trials which have been conducted according to scientific protocols. Other inoculant products will have a comparable cost but farmers should ask for published trial data to determine performance and likely returns.”

Scientifically proven silage cover protection

Passion Film O2 Barrier

18m (wide)
50m (length)

Passion Yellow Oxygen Barrier Film

Passion Yellow is a specifically engineered oxygen barrier film of 45 micron (1.8 mil) thickness. Passion Yellow has been scientifically proven to protect forage and grains from oxygen.

- Passion Yellow minimises feed loss and protects and returns producer investments in feed inputs on dairy farms.
- The spoilage fed to dairy herd results in depressed dry matter intake and potential rumen damage which deprives cows of essential nutrients needed for milk production.
- Healthy rumen function begins with the feed that provides energy, protein, minerals and vitamins - all of which Passion Yellow oxygen barrier protects✓
- With less spoiled feed to pitch you can save labour and time can be utilized in other areas of your business.

Technical Date Sheet

Appearance: Transparent flexible film with a yellow tint

TEST	UNIT	METHOD	TYPICAL VALUE	TOLERANCE
Thickness	um	ISO 4593	45	±10%
Tensile strength at break	MD	N/mm ²	42	±15%
	TD	N/mm ²	42	±15%
Elongation at break	MD	%	750	±15%
	TD	%	750	±15%
Dart Drop	g	ASTM D1709-A	>400	
Oxygen Transmission Rate	cm ³ /m ² /24hr	DIN 53380-3	<0.4	

**Now available through
Notman Pasture Seeds**



GETTING BACK TO PASTURE

NOTMAN
PASTURE SEEDS

LATE MATURING RYEGRASS

BULLET ANNUAL RYEGRASS



 Tetraploid  Robust, proven  30-45 kg/ha  +16 days heading date

ECONOMIC, WINTER GROWTH

ED MAX ANNUAL RYEGRASS



 Diploid  Low cost option  30-45 kg/ha  +3 days heading date

HIGH YIELDING OATS

COO-EE FORAGE OATS



 Leafy cereal forage  Fast re-growth  80-120kg/ha  Quicker than ryegrass

IMPORTANT:

Always observe plantback restrictions for maize pre-emergent chemicals on pastures and crops sown after maize

SUPER QUICK RYECORN

SOUTHERN GREEN RYECORN



 Short term cover  Fast starter  100 kg/ha  Quicker than oats

WINTER COVER CROPS

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Using the versatile legume mix as an alternative to grasses inbetween maize seasons in southern Victoria

- High dry matter yields and excellent production with shaftal, balansa & crimson clover
- Balansa ideal at withstanding periods of waterlogging
- Increased winter/early spring production compared to subterranean clover
- Adapted to a wide range of soils and pH

Balansa, Shaftal & Crimson Clover mix @ Purnim 2022

Sown at 15-25kg/ha

Weed control essential at 2 trifliate leaf stage

No starter fertiliser or in crop nitrogen in this crop



October 2022, prior to incorporating back into the soil

WINTER COVER CROPS

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Nitrogen fixing potential



Andrew Allsop, Notman Pasture Seeds Western District



Australian owned & operated since 1987

NOTMAN PASTURE SEEDS



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