



in form on the farm

Targets of effective silage preservation:

- Harvesting at butonisation phase (alfalfa, clover) and flowering (grass)
- Providing high utilization of nutrients, palatability and feed intake
- Suppression of activity of undesirable bacteria
- Use of suitable mechanization and adaptation of organization of silage line to possibilities of spreading and packing in the silo pit
- Suppression of activity of yeasts and molds
- Maintaining of losses at acceptable level
- Fast decrease of pH during fermentation
- Not disturbed health status of animals
- Easy and effective application of solution – use of low volume applicators



Effective preservation with product line Formasil®



Traditional Czech producer

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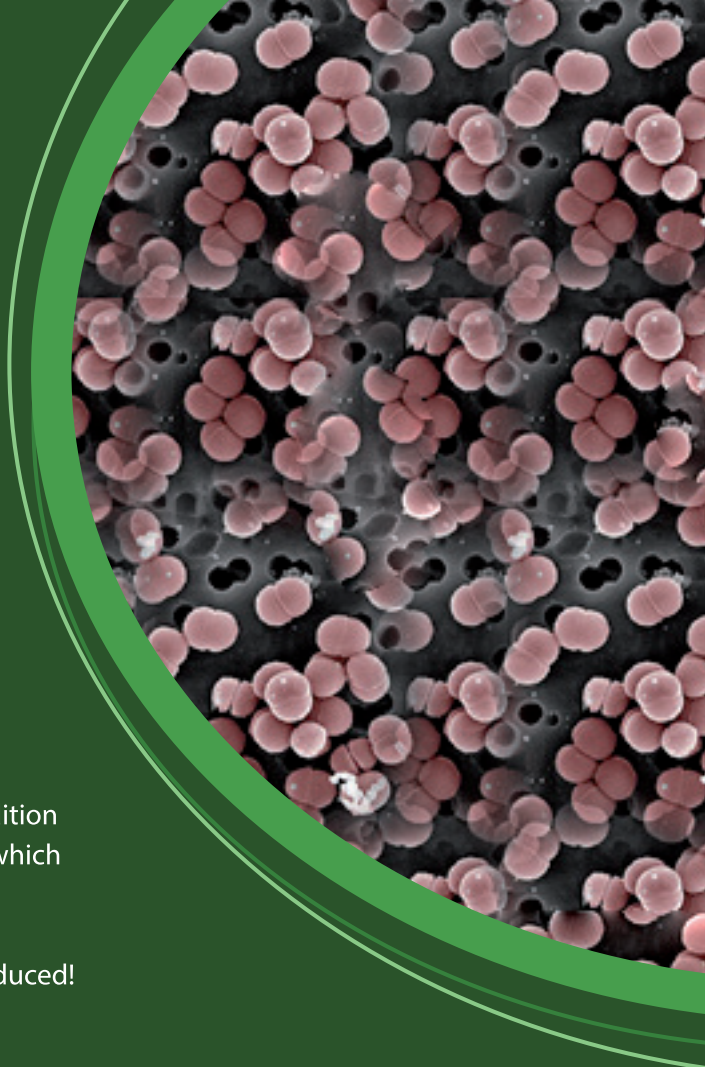
Formasil®

Bacterial – enzymatic preparation

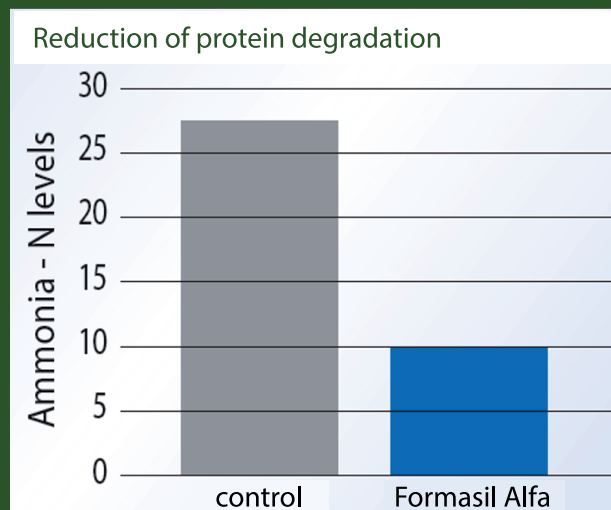
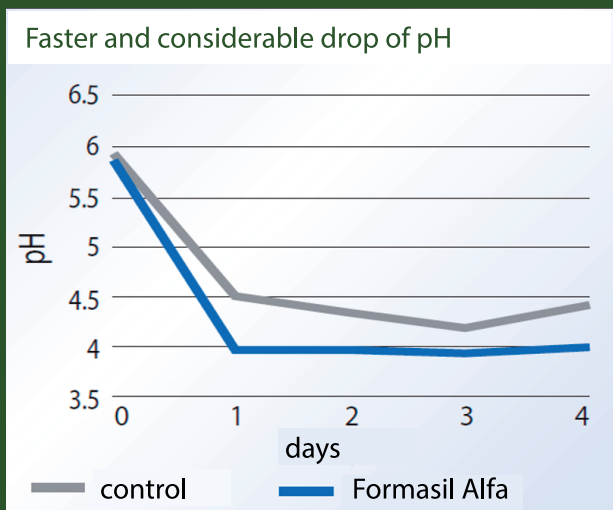
Strain *Pediococcus pentosaceus*:

The strain is not competitive to bacteria of lactic fermentation, on the contrary it creates the environment for their fast growth at the beginning of fermentation. It has a short generation interval. It is prosperous in the environment of pH 4,5-8, ideally at pH 5-6,5. While it creates low pH, clears the space for *Lactobacillus plantarum*, for which lower pH is more suitable. It tolerates higher dry matter, it has wider range of optimal temperature and pH for growth, it also grows at colder condition (Spring, Autumn). It has a capability to produce bacteriocins, which inhibit growth of some other bacteria and beat up listeria.

It can also utilize five-carbon sugars, so more lactic acid is produced!



Reduction of dry matter losses thanks to rapid acidification and higher content of nutrients in prepared and fed silage



Advised dry matter for silage making

grass: 30-45 %,
clover-grass: 32-42 %, clover 34-40 %,
alfalfa: 33-45 %,
peas: 30-45 %, GPS (whole grain silage): 25- 35 %

Safety

It is not caustic. It is not toxic.

Stability and storage conditions

Keep at dry place, max. +20 °C (optimally up to 4°C) in original packaging. Stability: 24 months from the date of production

Packaging and dosage

Sachet (paper/polyethylene/aluminum/polyethylene) containing 100g (70g) of freeze-dried powder to treat 100t (70)t of fresh forage.

Benefits:

- reduces warming-up and increases aerobic stability
- minimize losses of feed
- rapid decrease of pH
- high enzyme activity that release energy sources from hemicellulose and cellulose
- inhibits growth of molds and yeasts
- minimize presence of undesirable microorganism
- applied bacteria in given quantity promote faster fermentation
- treated silage increases palatability and dry matter intake
- suitable for bio gas stations



Formasil®

For preservation of easily and moderately silable fodder crops (grass, clover-grass)

Composition: **Pediococcus pentosaceus** NCIMB 12455 1×10^{11} cfu/g

Beta-glucanase EC 3.2.1.6 *Aspergillus niger* MUCL 39199 > 3200 IU/g

Xylanase EC 3.2.1.8 *Trichoderma longibrachiatum* MUCL 39203 > 2400 IU/g

Formasil® Alfa

For preservation of hard and moderately silable fodder crops (alfalfa, clover)

Composition: **Pediococcus pentosaceus** NCIMB 12455 (1k) > $1,50 \times 10^{11}$ CFU/g

Lactobacillus plantarum CNCM MA18/5U (1k) > $1,50 \times 10^{11}$ CFU/g

Beta-glucanase from Aspergillus niger MUCL 39199 (EC 3.2.1.6) (1k) > 8 170 IU/g

Xylanase from Trichoderma longibrachiatum MUCL 39203 (EC 3.2.1.8) (1k) > 9 049 IU/g

Advised dosage (Formasil®, Formasil® Alfa):

Standard applicators

- 1) Dissolve a content of 1 sachet in 100 liters of clean water
- 2) Apply 1 liter of solution per 1 ton of forage crops

Low volume applicators

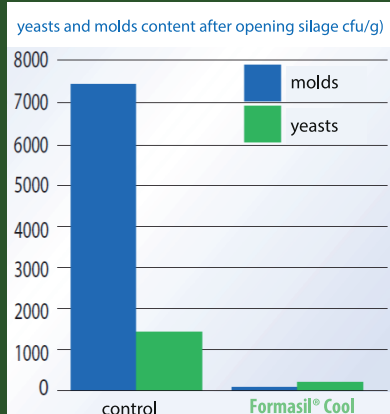
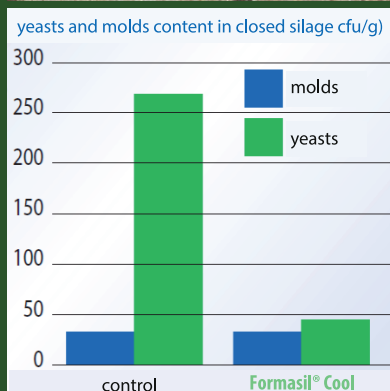
- 1) Dissolve a content of 1 sachet in 4 liters of clean water
- 2) Apply 40 milliliters of solution per 1 ton of forage crops

Lukewarm water pour on the preparation (NO conversely!) in a container. Prepared solution apply in 8 hours, the longest in 48 hours after dilution. Keep solution in cold place and in shadow.

Formasil® Cool

For fodders with the high dry matter content

This preparation was developed especially for grasses and protein fodder crops harvested at high dry matter



- handle growth of undesirable molds and yeasts
- improves aerobic stability
- prevents overheating of the mass
- decreases dry matter loses
- increases content of nutrients
- inhibits alcohol fermentation

Composition:

Pediococcus pentosaceus NCIMB 12455 (1k) > 7,14 x 10¹⁰ CFU/g

Pediococcus pentosaceus NCIMB 12455 (1 k) > 7, 14 x 10¹⁰ CFU/g

unique strain Lactobacillus buchneri NCIMB 40788 (1 k) > 1,43 x 10¹¹ CFU/g

Beta-glucanase z Aspergillus niger MUCL 39199 (EC 3.2.1.6) (1 k)> 5 821 IU/g

Xylanase z Trichoderma longibrachiatum MUCL 39203 (EC 3.2.1.8) (1 k) > 6 444 IU/g

Advised dosage:

1 sachet (70 g) serves for treating of 70 tons of fresh fodder crops

There is possibility to combine with other types of Formasil

Standard applicators

- 1) Dissolve a content of 1 sachet in 100 liters of clean water
- 2) Apply 1,4 liter of solution per 1 ton of forage crops

Low volume applicators

- 1) Dissolve a content of 1 sachet in 4 liters of clean water
- 2) Apply 57 milliliters of solution per 1 ton of forage crops

It is possible dosage and application to deal with the consultant from VVS. Lukewarm water pour on the preparation (NO conversely!) in a container. Prepared solution apply in 8 hours, the longest in 48 hours after dilution. Keep solution in cold place and in shadow.



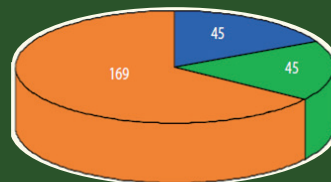


Formasil® Maize

For preservation of corn

Benefits:

- reduces warming-up and increases aerobic stability
- minimize losses of feed
- suitable for bio gas stations
- inhibits growth of molds and yeasts
- minimize presence of undesirable microorganism
- inhibits alcohol fermentation



Hours of aerobic stability
45 – control
45 – acids
169 – Formasil Maize

It is possible to order practical load bags while ordering inoculant



Composition:

Pediococcus pentosaceus NCIMB 12455 (1 k) > 7,50 x 10¹⁰ CFU/g

unique strain Lactobacillus buchneri NCIMB 40788 (1 k) > 2,00 x 10¹¹ CFU/g

Advised dosage: 1 sachet serves for treating of 200 tons of fresh fodder crops.

Advised dry matter for corn silage making: corn 32 – 37%, CCM (wet corn grain) 62 – 68%, LKS: 60 – 65%

Instructions for use:

Standard applicators

- 1) Dissolve a content of 1 sachet in 100 liters of clean water
- 2) Apply 0,5 liter of solution per 1 ton of forage crops

Low volume applicators

- 1) Dissolve a content of 1 sachet in 5 liters of clean water
- 2) Apply 25 milliliters of solution per 1 ton of forage crops

Lukewarm water pour on the preparation (NO conversely!) in a container. Prepared solution apply in 8 hours, the longest in 48 hours after dilution. Keep solution in cold place and in shadow.

Low volume applicator

with a digital panel for the easy set-up



Benefits:

- Transparent tank for water with a capacity of 55 liters
- Treating more than 1000 tons of forage crops while dosing 55 ml/t
- 3-way valve
- It does not contain nozzles and often blockage does not occur
- There is no use of filter during application
- Easy operation, montage and service

Easy set-up – 2 switches – 1 button – Digital display

Select application dosage
50 or 100 ml/t



Give the amount of forage
crops mass using button
which will show on the display



Pointer shows that pump
is set-up and ready for
application



If the sensor is installed, it can
be used together with a panel



DIGITAL CONTROL PANEL

The digital panel automatically monitor and tuns dosing of pump, it allows a precise dosage of silage inoculant while harvesting 15 up to 300 tons per hour.

