



SILAGE DECISIONS FACTSHEET



ADDITIVES

There are many different silage additives on the market with various modes of action, including acids, inoculants, enzymes and absorbents. Enzymes are typically included in inoculants, but there are a few enzyme only additives.

Silage additives vary, so it is vital to ensure they are suited to the circumstances (e.g. crop dry matter) and crop so they can deliver the required benefit. Always check the manufacturer's information and apply according to the instructions.

An additive cannot make a bad grass crop into good silage. Making good silage and clamping or wrapping it well should be a high priority.

Inoculant additives

- The most popular additive in the UK (72% of the market in 1998).
- Promote efficient fermentation
- Typically contain one or more lactic acid bacteria
- Aim to reduce pH rapidly and preserve protein
- Research on some products shows silage is preserved better than with acids
- Can increase dry matter intakes and possibly improve protein N utilization
- Some can destroy clostridia which is particularly dangerous to sheep

Acid additives (e.g. formic acid)

- Inhibit or stop fermentation, by giving a rapid pH decline.
- Still have a role with low dry matter silages
- Increase aerobic stability
- Reduce palatability of silage
- Can be hazardous (corrosive and toxic) and polluting

Absorbents (e.g. sugar beet pulp)

- Reduce effluent loss in low dry matter silage

Information on individual products is available in the AIC (Agricultural Industries Confederation) Silage Additives Registration Scheme. This has two main registration categories:

- **Silo Trials** (sub-categories: improving fermentation, improving aerobic stability, reducing effluent and reducing ensiling losses).
- **Animal Trials** (sub-categories: improving voluntary intake, improving digestibility *in vivo*, improving the efficiency in energy and/or nitrogen utilisation, improving animal gain, improving milk production).

Further information: AIC (Agricultural Industries Confederation) Forage Additives Register, available online at www.agindustries.org.uk in the additional services section.

Grass: Its production and utilization, third edition, Edited by Alan Hopkins, published for the British Grassland Society by Blackwells Science.

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