

Silage Inoculant II Research Summary

1. 1986 - Alfalfa Silage - University of Wisconsin

- * 25% increase in dry matter intake
- * 5 days improvement in bunklife

2. 1987 - Alfalfa Silage - Lakeside Research, Alberta

- * 7% more protein retained
- * 3% improvement in dry matter recovery

3. 1987 - Alfalfa Silage - Alberta

- * LAB levels 30x control 10 days after ensiling

4. 1988 - Alfalfa Silage - University of Manitoba

- * 16.4% improvement in weight gain
- * 11.3% increase in DM intake
- * 4.8% improvement in feed efficiency

5. 1988 - Grass Silage - Dumfries, Scotland

- * Milk yield increased 33 kg per cow

6. 1988 - Corn Silage - Kansas State University

- * 5% improvement in feed efficiency

7. 1988 - Barley Silage - Airdrie, Alberta

- * 6.5% improvement in feed efficiency

8. 1988 - High Moisture Corn - University of Guelph, Ontario

- * 2.1% increase in DM recovery

9. 1989 - Alfalfa/ Timothy Silage - Nova Scotia Ag College

- * 1.3 lb/d extra fat corrected milk, mid-lactation
- * 1.6% improvement in non-fat solids content

10. 1991 - Corn Silage - Kansas State University

- * 6.1 lb more gain per ton ensiled
- * improved fermentation characteristics

11. 1992 - Corn Silage - Kansas State University

- * 3.5 lb more gain per ton ensiled
- * improved fermentation characteristics



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12. 1993 - Corn Silage - Wye College, University of London, UK

- * 2.4 lb/hd.d increase in fat corrected milk yield
- * 0.2 lb/hd.d more milk protein
- * 12% improvement in DM recovery
- * Aerobic stability significantly improved
- * 81 kg/ tonne more silage retained after opening

13. 1994 - Corn Silage - USDAFRC

- * Improved DM recovery (0.5% losses vs. 4.8% in control)

14. 1994 - High Moisture Corn - USDAFRC

- * Improved aerobic stability (161h to heat vs. 57h for control)
- * Reduced yeast population
- * Improved fermentation characteristics

15. 1994 - Round Bale Silage - Agriculture Canada, Kapuscasing

- * 33% improvement in calf ADG
- * 21% increase in DM intake

16. 1995 - High Moisture Corn - Kansas State University

- * 6.8% improvement in ADG
- * 4.9% increase in DM intake
- * 1.8% increase in feed efficiency

17. 1993 - Grass Silage -ADAS Bridgetts EHF, UK

- * improved fermentation characteristics
- * 11% increase in silage DMI

18. 1994 - Grass Silage - Kingshay Farming Trust, UK

- * severely challenging forage (16.5%DM, 12.1% ash)
- * improved fermentation characteristics
- * 28% improvement in DM recovery
- * 30% reduction in run off



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19. 1995 - Grass Silage -ARINI, Hillsborough, NI

- * improved fermentation characteristics
- * 10% improvement in DM recovery
- * 8% improvement in ADG
- * 10% improvement in feed conversion

20. 1995 - Grass Silage - IGER, Aberystwyth, UK

- * 24% increase in silage DMI

21. 1995 - Grass Silage - Scottish Agricultural Colleges, UK

- * Improved fermentation characteristics
- * 402 lb increase in milk production/ ton silage DMI

22. 1995 - Corn Silage - IGER, Aberystwyth, UK

- * Improved fermentation characteristics
- * 11% increase in organic matter digestibility
- * 7% increase in in-vivo fiber digestibility

23. 1995 - Corn Silage - ADAS Drayton EHF, UK

- * 32% improvement in NDF digestibility in rumen after 3 hours

24. 1995 - Corn Silage - Wye College, University of London, UK

- * improved fermentation characteristics
- * 70 lb increase in milk production/ ton silage DMI

25. 1995 - Corn Silage - Centre for Dairy Research, UK

- * improved fermentation characteristics
- * DM losses reduced from 12.8% to 4.6%
- * forage NDF reduced by 7%
- * \$0.26 additional milk value per cow per day

26. 1998 - Grass Silage -ARINI, Hillsborough, NI

- * DMI increased by 1.9 lb/ hd.d (8.7%)
- * Milk protein increased by 0.16 lb/ hd.d (9.5%)
- * Milk production increased by 3.36 lb/ hd.d (5.9%)

27. 1998 - Grass Silage - Borland Farm, UK

(Trial conducted by independent agricultural consultant)

- * Milk protein increased by 0.12 lb/ hd.d
- * Milk production increased by 2.4 lb/ hd.d



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27. 1997 - Corn Silage - UW, River Falls, WI

*Faster initial ensiling fermentation, data 21 days after bagging:

	UT Control	Biotol Plus
Lactic acid	4.2%	6.1%

28. 1998 - Alfalfa Silage - UW, River Falls, WI

*Faster initial ensiling fermentation, data 5 days after bagging:

	UT Control	Biotol Plus
pH	5.31	4.67
Lactic acid	3.1%	6.7%
Lactic: Acetic ratio	3:1	13:1

29. 2001 - Barley Silage - Lethbridge Research Centre, AB, Canada

*Faster initial ensiling fermentation, more rapid ph drop (below)

*42% reduction in DM losses in ensiling fermentation

pH of barley silage in mini-silos

