



Professional Nutrition & Management Services

DAIRY- UPDATE

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Haylage-in-a-Day

By Laura Morris

Since the inception of the BSC Dairy meetings five years ago, we have had a strong focus on forage quality and how it can reduce feed costs and keep cows healthy. Last year BSC featured Tom Kilcer and his progressive forage management system for ensuring maximum forage storage yield and quality. Since then, we have reevaluated the way we take off our forage as well as the potential value laying in our fields. We no longer look at “rocket fuel” haylage as a negative thing, we look at it as less commodities that we have to purchase this year because we had a plan and executed it as best we could to harvest excellent quality forage.

For those of you that didn’t participate in last year’s meeting, I’ll start from the beginning. BSC was fortunate enough to have Tom Kilcer from Advanced Ag Systems in New York speak at our meeting. Tom is a crop advisor that spent most of his career at Cornell University. He spoke on wide swath haylage also known as haylage-in-a-day. He discovered that if haylage is laid out to at least 80% cutter bar width, we get superior

drying but also are able to lock in more nutrients and maintain a better quality protein. This is because when haylage is in the dark at night time, or at the bottom of a narrow swath, the plant is respiring or using nutrients. It is converting carbohydrates to water and carbon dioxide and converting good quality proteins into nitrogen and peptides. When the plant is in the light during day time or in a wide swath, it is photosynthesizing or making nutrients. It is using the energy of the sun to produce sugars and proteins. This process does not stop when the plant is cut, but continues until it reaches 65% moisture and then these processes stop. So basically, we cut in the morning into a wide swath so that the plant can use the sun and produce sugars until it reaches its optimal moisture for harvest, and then we harvest a nutrient rich crop. This is beneficial for fermentation as well because the bacteria need sugar to convert to organic acids to lower the pH and these sugars are more abundant in wide swath haylage.

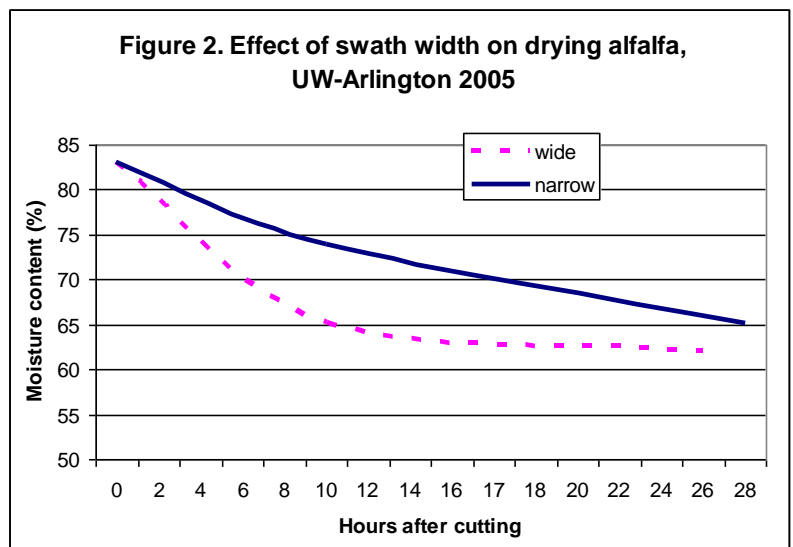


Fig. 1. Notice the pattern of drying. The initial stage of drying is very rapid when the windrow is laid out wide. (Kilcer, 2003)

So why isn’t everyone making haylage in a day? Generally it is an equipment issue. Many mower conditioners open to a maximum of less than 65% cutter bar width. This is something to consider when buying a new mower. Also, once the haylage is in a

wide swath, we generally need a merger, or even a rake, to combine two or more rows together for the chopper. A merger will increase drying speed again as well as allow the chopper to run at maximum capacity.

Does it work? Following those meetings, several producers implemented the haylage in a day philosophy and working together with their BSC representative were able to vastly decrease their purchased feed costs – by reducing the amount of grain, protein and mineral that needed to be fed – because these nutrients were left in the forages. One of the more recent success stories yielded a \$1.50 reduction in purchased feed costs (or almost \$550/year/cow), while maintaining yield and increasing components. Kilcer has done much more extensive research which came up with the number of 140 kg more milk potential per tonne of dry matter. This scenario allows farmers to have more control of their feed quality and allows less to be paid out in protein, energy and mineral costs improving profitability and cash flow.

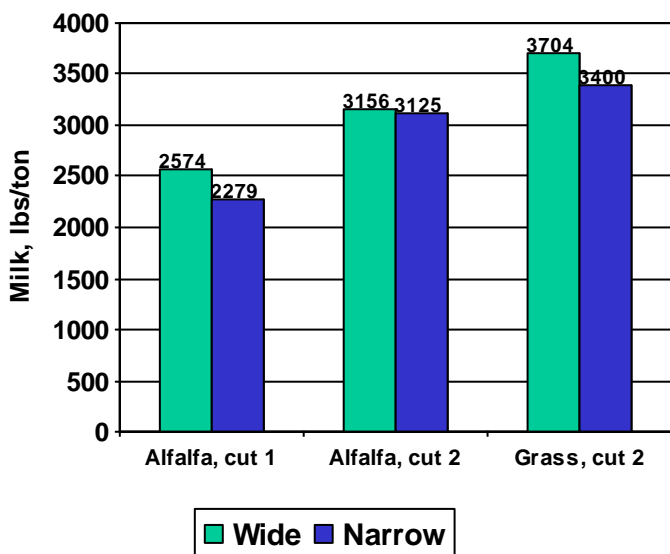


Fig. 2. This is the amount of milk per ton in different harvesting situations. (Kilcer, 2003)

Please join us for our 5th Annual Cattle Conference

Wed., Feb. 16th, 2011	Thurs., Feb. 17th, 2011
Watford United Church	St. Marys United Church
555 Ontario Street	85 Church Street S
Watford	St. Marys

- 9:45 AM Coffee and Registration
- 10:15 AM Joel Bagg - OMAFRA Forage Specialist
- 11:00 AM Kathleen Shore & Anton Reijmers - Grober Animal Nutrition
- 12:00 Noon Lunch
- 1:00 PM Dr. Simon Timmermans – U.S. Herd Advisor
- 2:00 PM Anita Heeg - Alltech Canada
- 3:00 PM Questions and Adjournment

Please RSVP to:
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DAIRY UPDATE is published in the interest of helping dairy producers become more profitable. We welcome your comments. Also available on-line at www.bscanimalnutrition.com

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