




AEP®

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SUNFILM

Silage



AEP®

How & Why



El Nino's fault... or mine?

Excuses or Solutions

IT'S YOUR CHOICE!

The best of the best excuses... or the worst

heard throughout North America!



1 Too much rain.
Not enough rain.
A tie for first place.

2 Hay is too short now.
I remember back in 1978 we had to buy hay,
so I will wait until it grows.
Winner of the most expensive excuse.

3 Hay is not green enough.
We need one good rain and then we will start.
#2 in southern part of U.S.A.

4 Too much rain.
Ground is so soft that we have to wait.
Good reason but stressful.

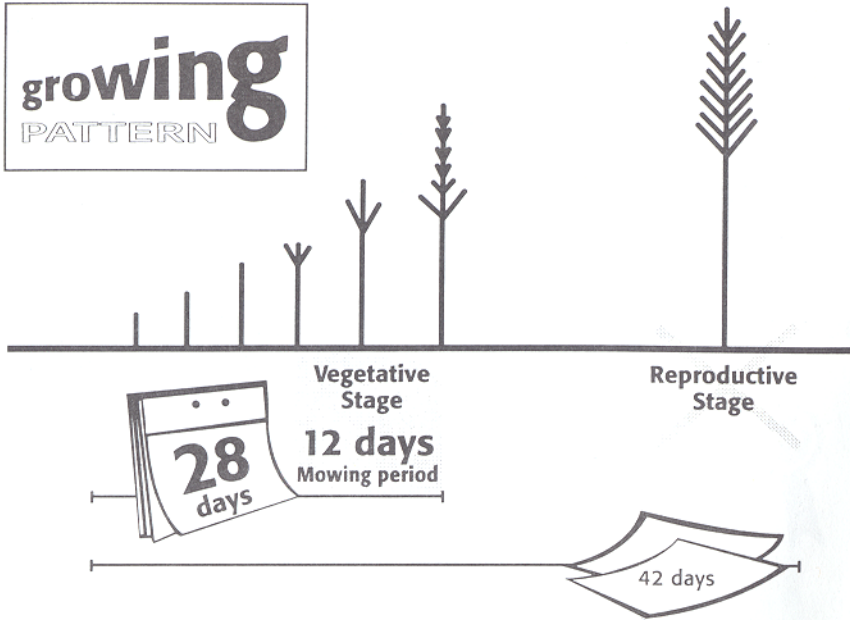
5 I have to finish another job, then I will start.
Poor excuse, very expensive, poor planning.

6 It will rain tomorrow afternoon.
We don't have enough time.
Wrong! You have enough time for haylage.

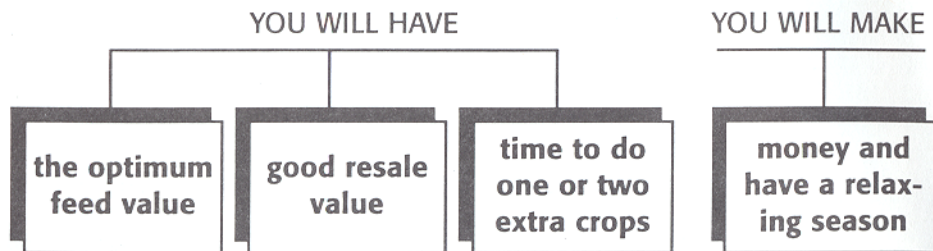
Written by Bernard Adam
Innovation Agricole Adam Inc.

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growing PATTERN



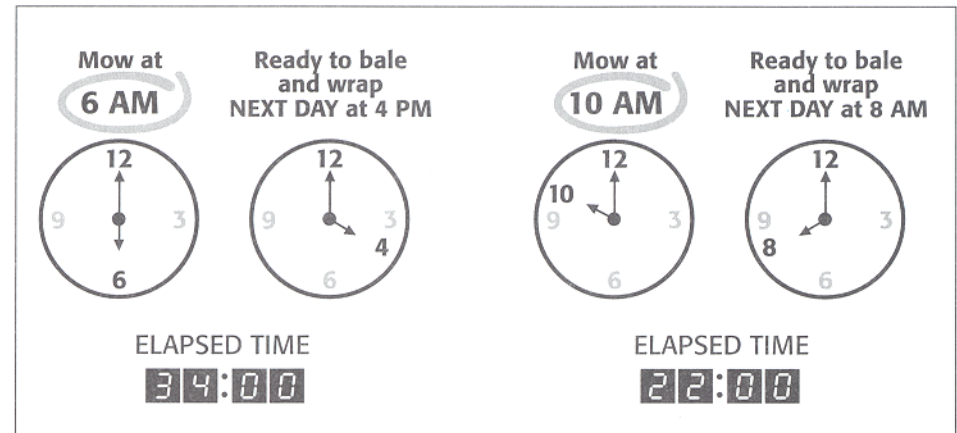
If you mow during the vegetative stage,
you will have another crop in 28 days.



If you mow at the reproductive stage,
your next crop will be ready in about 42 days

- your feed value will be at the minimum.
- you will give your herd what they need to survive, not grow.
- you will spend money and work harder.

First Crop of Alfalfa North of the Dixie Line



Same principle applies to all types of grasses,
except for elapsed time.

It depends on where you live.

Example: Louisiana U.S.A.
Elapsed time from 0 to 4 hours and you will have normally reached
40% - 45% of Dry Matter (D.M.)

The only required information is
moisture content
of your crop to start baling

Determine it in 15 minutes with 100% accuracy.

See next page

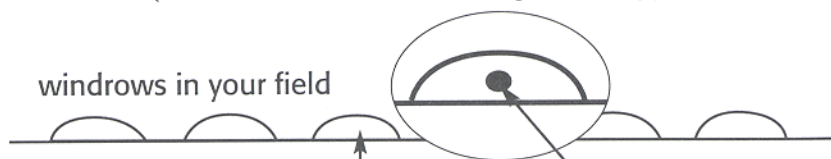
Microwave test

900 seconds or 15 minutes

**This 15 minute effort is
your second best decision of the year.**

(First decision is to mow at the vegetative stage)

windrows in your field



Select a representative windrow

• Pick a sample in the 3rd windrow of hay (ONE HANDFUL of hay)

• Place it in a plastic bag

• Weigh it. - You need
50 to 60 grams of hay
(measure with a
digital scale ≈ \$100)

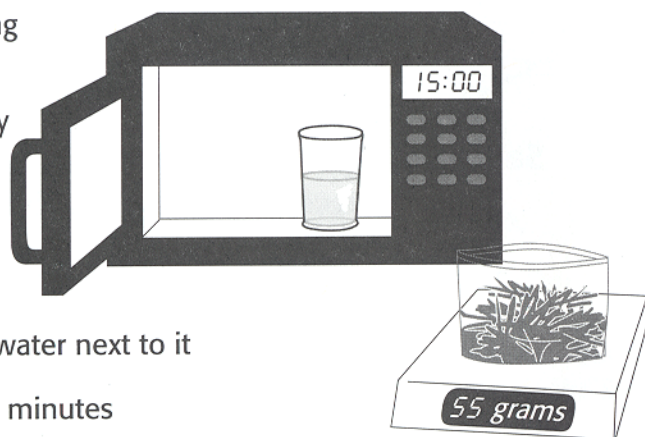
• Leave the bag open
in the microwave

• Place a glass of cold water next to it

• Set microwave for 15 minutes

• Replace water every time it boils.
After 3 glasses, your sample is dry

• Weigh it again



Final weight ÷ Original weight = Dry matter %

When you have **40 % or more** of D.M. (60% moisture)

START BALING

For legumes you need 45% D.M. or 55% Moisture

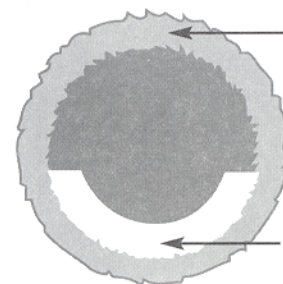
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**What is the difference between a dollar
spent in June or spent in January**

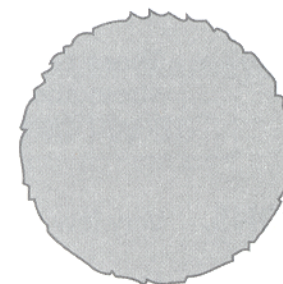
Each dollar invested in silage film at haying time
will save you 2, 3 or 4 dollars
during the following winter

DRY HAY
Outside Storage



Total loss = 44 %

HAYLAGE
Outside Storage



NO LOSS

Assuming that you lose the minimum possible
in North America (25%)

For every 100 bales of forage of dry hay,
you need to make 133 bales.
(100 bales ÷ 75% = 133 bales)

If you put \$150.⁰⁰ worth of silage film on those 100 bales
you will save 33 bales at \$20 approximately each.

33 bales x \$20.⁰⁰ = \$660.⁰⁰ minimum value

**Each dollar invested in silage film in June
will save \$4.⁰⁰ or more in January.**

Think about it!

Where to wrap

In the field or At the storage site

PROS. and CONS.

In the field

- PROS.** A- One man operation if you have a baler-wrapper.
No delays between baling and wrapping.
- B- Two men operation, no delays
if you have a self loading individual bale wrapper.

These conditions eliminate the weather problem, stress and the risk of sweating and ventilation if you have a long distance to haul.

- CONS.** Very few options known to move wrapped bales safely.

Mc Hale and Kverneland roller type loaders - 1 bale at a time
or Techno-Bale model 980 - 5 bales at a time.

Need plastic with very good puncture resistance in Alfalfa field.

At the storage site

- PROS.** Very acceptable if there is no delay (maximum 4 hours) between baling and wrapping and if distance is less than 2 miles.

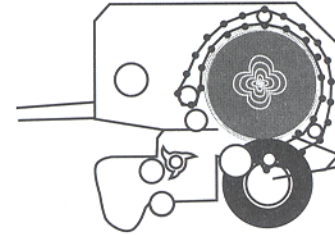
- CONS.** More than 2 miles, you should leave the bales wrapped on the side of the field (if possible) and move them only when needed.

The ventilation of unwrapped bales during a long haul may create fermentation problems.

Balers

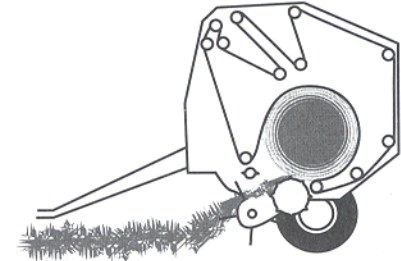
Fixed Chamber

(soft core)



Variable Chamber

(hard core)



Ideal baler size for haylage

4' x 4'

or

4' x 5'

Optimum diameter

48" to 56"

HARD CORE or SOFT CORE
doesn't matter

The tractor driver has the most influence on quality.

For haylage, drive slower but maintain high P.T.O. revolution.

There is more feed value in a 4' x 4' wrapped haylage bale than in 5' x 6' bale of dry hay.

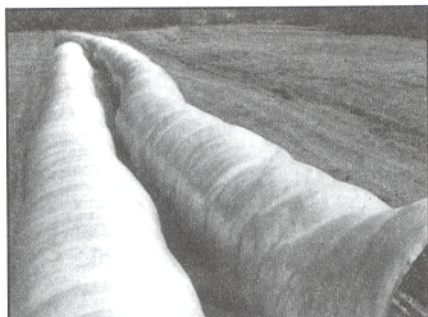
If you have a 5' x 5' instead of a 4' x 5', make your bale at a maximum of 48" in diameter. It is important for quality. No savings are achieved in making larger diameter bales.

Wrappers

Individual

or

In line



For quality haylage, there is no difference.

But...

If you are preparing to purchase a new wrapper insist on 30 inch pre-tensioner, instead of 20 inch pre-tensioner.
Savings of up to 30% in wrapping time.

PRECAUTION

During period of hot weather,
you must clean the pre-tensioner rollers frequently
to remove cling deposits.

This will control the stretch to levels you need (55% to 75%).
Overstretched plastic, 75% and greater, may result in
premature film degradation and reduced oxygen barrier properties.
The lack of oxygen barrier allows the CO₂ inside the bale to escape.

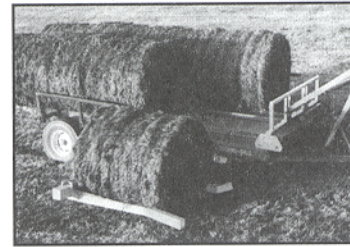
Bale Movers

MODEL
900



5 BALES

MODEL
960



9 BALES

MODEL
980



5 BALES

1 kilometer or less

- A self loading carrier holding 5 bales will keep up with the baler production.
- It requires a 30 H.P. tractor.

Advantages : Limited soil compaction.

With one man and a tractor, this system is faster than a bale wagon on which you place 11 to 17 bales. Moves up to 40% more bales per hour.

1 kilometer to 3 kilometers

- 9 bale carrier, preferably with a 60 H.P. tractor.
(F.W.D. if you have slopes)
- For some crops, the weight of the trailer plus the bales may exceed 20.000 pounds.

3 kilometers or more

- If you can move the bale during winter months, leave them there wrapped, beside the field, until you are ready to feed your herd.
If you can't, consider making dry hay on this field.

TECHNO-BALE:

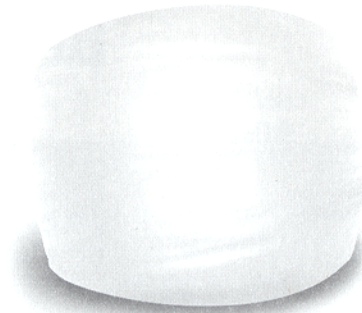
SPECIALLY DESIGNED FOR HAYLAGE. NO CHAIN. CAN PICK A 2000 POUND BALE AT 3 M.P.H.
CAN CARRY A BALE ON THE LOADING ARM.

MANUFACTURED IN BROMONT, QUEBEC (450) 534-2476

Silage Film

Is there any difference
between manufacturers?

YES!



Some are committed to their customers by learning first, through research, what you as a farmer need.

Some are interested in your money, thinking that all films are alike. They may discount their product to get your business.

- 1 : You are free to pick the one you want. A good silage film will provide an excellent oxygen barrier that will keep the CO₂ inside the bale. If you lose the CO₂, your haylage will develop molds.
- 2 : You need the film to last at least one year outside in the sun. This requires good U.V. protection.
- 3 : You need enough tack or cling on the film to seal the bale.
- 4 : Plastic, exposed to heat and cold will keep expanding and contracting so you need a blown film to compensate for that.
- 5 : This plastic **SHOULD be white** to reflect the heat. Any other colour will ABSORB the heat instead of reflecting it. Too high of a temperature inside the bale will fix the protein to the fiber and increase the time needed by cows to digest that fiber, thus reducing the space in the rumen for new forage intake. This is known as the "bounded protein" effect.

It will result in a loss of profitability!

Crop Management

Every bale made on your farm has a different conservation period. You can know at time of wrapping the length of time that the feed value will be at 100%.

HOW?

Two things to remember

Maturity

When the hay is all headed or all bloomed, there is not enough sugar left in the plant to ferment properly.

Over mature hay will develop molds after three months typically.

Moisture

When hay is too wet upon baling, butyric acid may develop 42 days after the wrapping has been done. The feed value will start to diminish after 90 days. In some instances with legumes, fermentation may even be **impossible**.

When haylage is too dry, the palatability will be affected and haylage may be refused by cows after 6 months.



So the ideal stage to mow is the vegetative stage i.e. just before it is all headed for grass and for legumes when you see about 10% flowers.

Moisture level is 40% to 60% for grass and 40% to 55% for legumes. This haylage will maintain it's feed value for one year.

30% to 40% not as good after 6 months, but perfect before, so feed first.

Too wet, more than 60%, boy hurry up to feed this before it 's over 3 months old.