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NEWARK, Del. — Well, it's still white outside and the groundhog, on target once again, saw his shadow Feb. 2.

His predicted six more weeks of winter will be over soon enough, replaced by spring work in the fields.

Along with the eager anticipation of warmer weather comes planning for the next crops to feed our milking animals — cold-season forages, grazing, green chop, haylage, silage and hay.

Planning, supported by alreadyestablished crops, should focus on when and how best to harvest, given the almost certainty of weather interference.

"How best," where my plan-

ning is concerned, means first and last the calendar date for the most nutritious crop (not the highest crop yield). It also means harvest of all the nutrition in the crop, not just 75 percent or only 50 percent because of the fickle dictates of weather, plant maturity and labor.

So, how do we do it?

Grazing is ideal in many ways. It's certainly the most cost-effective harvest if rotation and electric fences are well managed. Weather and plant maturity can have only limited influence.

In recent years intensive, rotational grazing has again gained in popularity because of its low cost.

It has been called the Voisin system, or 90 years ago, the Hohenheim system, after the German agricultural college that pioneered the practice.

Farmers in this region who practice cold-season rotational grazing, with rye for example, usually laugh all the way to the bank!

More intensive is the green chop harvest, but weather and plant maturity can interfere. For this reason, it is used more in summer, when these variables are less of a factor.

Haylage, silage and haying are the remaining alternatives. The dual risks of weather and plant maturity clearly favor haylage for the first crop harvest.

Haylage harvest assures contents of the most nutritious crop, and even a narrow weather window is usually sufficient for good

This is especially true with the new technology of large bales wrapped airtight in plastic. I have seen and sampled large-bag haylage that was one year old and still as palatable and of excellent quality as when made fresh. Cows even prefer it over corn silage.

This system maximizes nutritional harvest with a minimum of labor and risks.

A bonus to large-bale haylage is the long fiber, which counteracts the bad effects of short-cut silage and heavy concentrate feeding. There is no more risk of displaced abomasum.

But what about hay? We certainly want to make some: however, the weather risks almost mandate forgetting the first cutting or even the cold-season for-

A few years ago, a major study was published by Dr. A. Kivimae of the Animal Nutrition Institute of the Swedish Agricultural College in Uppsala.

"Chemical composition and digestibility of some grassland crops with particular reference to changes caused by growth, season and diurnal variation," a 142-page publication, contains tremendously useful information on alfalfa, red clover, alsike clover and timothy in planning the most nutritious feed harvest. It covers changes in protein, fiber, cellulose, lignin, fat, carotene, minerals, nitrogenfree extract, and what was then really new, soluble carbohydrates.

Today we hear more about carbohydrates, which can be very confusing.

One hundred years ago, Dr. Max Rubfler, a famous animal nutritionist at the Munich Agricul-

THIS (LITTLE PELLET) WILL **MAKE IT EASY TO BUY**

recently have had their status elevated to "proven" according to the approval rating system of a Mid Western commercial artificial insemination business.

All the bulls are graduates of the Progeny Test program used by the DeForest, Wis.-based American Breeders Service (ABS), a division of W.R. Grace & Co., Conn.

Through the company's progeny test program, a young test bull's semen is distributed within contracted PT herds across the U.S. As progeny are evaluated for production capabilities, a decision is made to promote the bull to proven status.

Among the six bulls raised by Pennsylvania Holstein breeders to receive that status is 29 H6085

Intergen I Ltd. of Pittsburgh and individual known for her superior was joint sampled through Golden Genes, Inc.

29 H6085 Revere is a Klark son from a good-uddered Bell daughter. Based on 36 daughters in 23 herds, Revere is rated with PTAs of +1904M, +85F, and +71P. With a PTAT of +1.23, Revere is a high total performance sire (+1104 TPI).

According to ABS, the daughters are slightly above average in size, with sloped rumps, and very high and wide rear udders.

Also joining the lineup is 29 H6155 Pen-Col R Dauphin-ET, bred by Pen-Col Farms of Millville.

Dauphin is an Arlinda Rotate son from a Very Good Ijon daughter. His dam is backed by the fam-

DEFOREST, Wis., - Six Intergen-I Revere-ET, bred by ous Pen-Col Bell Dream cow, an and 29 H6159 Singing-Brook Benchmark should cross well on offspring and high protein production.

Based on 59 daughters in 48 herds, Dauphin is rated with PTAs of +1426M, +50P, and +82F. With a PTAT of +1.35 and an udder composite of +0.69, Dauphin is a type and Total Performance Sire (+951 TPI).

According to the new release, Dauphin daughters are tall, strong, deep, and open. Additionally, Dauphin sires strong udder clefts and improved foot angle.

Dauphin should not be mated to virgin heifers, ABS warned in the release.

Two Holstein bulls bred by Obie Snyder of Imler, were added to the proven lineup. They are 29 H6217 Singing-Brook Benchmark-ET

Six Pa. Bulls Graduate To Provet Sta

29 H6217 Benchmark is one of the first proven Melwood sons and, according to ABS's analysis, sires daughters that excel in both milk production and confirmation.

His proof was based on 34 daughters in 24 herds. Benchmark is rated with PTAs of +2506M, +103F, and +70P.

With a PTAT of +1.93, Benchmark is an extremely high Total Performance Sire (+1188, TPI). Benchmark daughters are tall, strong, deep-bodied cattle with superior rumps and deep udder clefts.

Benchmark is the only Melwood son from this elite cow family and has already used as a sire of sons at ABS.

The company's position is that

many of today's popular I bloodlines.

Benchmark's dam is Paclamar Marietta Bows, the Excellent-90 Bova daughter of Jackbuilt Chairman Mandy.

Chairman Mandy has been a brood cow to such sons as Singing-Brook Mascot-ET.

Marietta Bows herself also has another proven son, 29 H6053 Marvel, who rose in some production areas this sire summary. Marvel is the Starbuck son ranked +1007 and is positive in all type composites.

The other Snyder-produced bull is a maternal brother to Benchmark, 29 H6159 Nittany.

Nittany is an Enhancer son from Jackbuilt Chairman Mandy (EX-92-2E).