PICKSEED®
good things growing...

# The Forage Informer

ISSUE 4 | NOVEMBER 2007 | THE BEST SOURCE OF INFORMATION FOR FORAGES AND CORN SILAGE

# Marshcrest Farms Inc.

*Paul Wight, PICKSEED Ontario Sales Manager*

It is now October, and I visited Marshcrest Farms in late June; I do hope everyone there has had a great growing season, and are looking forward to a bountiful harvest. In June the Maritimes were experiencing cooler and wetter weather than Ontario, the plantings had been later and haying was running behind normal.

*From left to right: Don Conrad with Robert Palmeter.*

**This family farm article** takes me to King's County, Nova Scotia, to the shores of the Minas Basin. Grand Pre is the nearest village, and Don Conrad our PICKSEED Sales Agent is driving us back to a farm I have visited before. Marshcrest Farms is located on the edge of dykelands that were built to reclaim land from the Minas Basin. Robert Palmeter, a seventh generation farmer, and his wife Ann operate Marshcrest with his brother, Allister and brother-in-law George.

Marshcrest is one of the earliest farms in the area to have been settled after the Acadians were evicted by the British when they refused to swear allegiance to the Crown. Don and Robert were discussing these early times and Robert recalled his family history as to who may have been the earliest settler to the area. The "New England Planters", as they were referred to, emigrated from the New England States. Most of these immigrants to King's County were from the Connecticut area. Elnathan Palmeter was the earliest Palmeter ancestor to settle in the area receiving his land grant of 1½ shares on May 29, 1761.

The Palmeters have a son living in Toronto. Jeff has a Bachelor of Fine Arts from Ryerson University. Their daughter Beverly has a Bachelor of Sciences from the Nova Scotia Agricultural College. She is employed as a salesperson for a mineral company.

Marshcrest Farms livestock consists of a Holstein Herd, some beef cows and a flock of Suffolk-Southdown sheep. The land base is 480 acres of mixed soils from light early ground to heavier and later dykeland types.

The 90-100 Registered Holsteins are housed in a free stall barn and milked twice a day in a double 8 DeLaval parlour. The dairy herd is supplemented with about 110-120 young cattle. The beef cows number 15 and the sheep about 70.

The Palmeters have been long time customers of PICKSEED, having bought their first seed through Walter Schaad. The farm acres seeded break down this way, 150 acres of corn made up of 50 corn silage mainly PICKSEED hybrids SilEx, ExAlt, ExAmple and 2585. The 100 acres dedicated to high moisture cob meal is mainly PICKSEED 2363, 2603Bt and 2270Bt. The remaining grain acres are 40 acres winter wheat, 25 acres barley.

Their forages consist of 200 acres of

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INSIDE

# Hay Sampling for Forage Quality Means Improved Milk Production

*Jay Hackney, Vice-President Research and Product Development, Pickseed Canada Inc.*

A vital part of ensuring optimum and economic milk production from the hay you are feeding is obtaining a good estimate of the forage quality of that hay. Knowing the feed value of your ingredients allows you to balance the ration to take full advantage of the ingredients.

The key to getting a good estimate of the quality of your hay is proper sampling. The lab estimate of forage quality will only be as good as the sample you provide, so it's vital that good sampling procedure be followed. Without it, you might as well just be guessing, and guessing costs you in lost revenue.

The protocol described here was developed over many years of practical experience throughout North America and was condensed and described by Dr. Putnam of the University of California, Davis.

1. Identify a single 'lot' of hay.

A hay 'lot' is hay from a single cutting, a single field and single variety. Different fields will vary in forage quality depending on maturity of the crop (even when cut on the same day) and of course quality will vary with variety. Combining and averaging different lots of hay will not result in a good estimate of quality. A single lot should be less than 200 Tons (182 tonnes).

2. Sample timing

Take the sample as close to the time you will be feeding (or selling) the hay because dry matter estimates change during storage and so may other measurements. Once hay is at 10% moisture it usually remains stable.

3. Use the correct sampling tool

Do not send flakes or grab samples to a lab for analysis because they have been proven not to be representative enough. The standard that has been developed is a coring device of 3/8 to ¾ inch diameter (1-2 cm) and long enough to provide a sample depth of 12-24 inches (30.5-61 cm). The tip must be sharp and must be maintained that way so as not to create 'fines' during sampling. The bottom line is that the probe should produce about a ½ pound (200 gram) sample in about 20 cores taken to a depth of 12-24 inches (30.5-61 cm). A list of good probes is available at www.foragetesting.org, the web site of the National Forage Testing Association (NFTA). Or, we can send you a copy of the list. Just contact our office (details on the back page).

4. Sample at Random

Take core samples from all parts of the hay stack (all sides, high and low) and don't choose or avoid bales because they look good or bad. Walk a few paces, take a core, walk a different distance, climb up and take another core, etc. until 20 random cores are taken.

5. Sample a Minimum of 20 Cores

Core to core (or bale to bale) variation in forage quality is very large (e.g. 5-7 percentage points of Acid Detergent Fibre (ADF) or Crude Protein (CP). If the hay lot looks variable (due to weedy patches in the field for instance) then take more samples (as long as they are random).

6. Use the Right Technique

Sample the butt ends of the hay bale and not near the edge. The probe should be inserted at a 90 degree angle. Don't sample the sides or the top of a bale since this represents only a single flake. With round bales, sample at the middle of the bale, aiming at the centre.

7. Get the Right Sample Size

You want to end up with a sample of ½ pound (250 grams). Larger sample are usually impractical because the lab will not be able to grind up a sample that size and will end up taking a sub-sample which may not be representative, defeating the whole purpose of the sampling you've

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# Marshcrest Farm cont'd

*continued from Front*

established hay fed as haylage and they direct seed 50 acres yearly. Varieties used are PICKSEED's PS2065MF and Starbuck alfalfas. On the lighter ground the mixtures are 75-80 per cent alfalfa to 25-20% Timothy. The heavier soils receive some clovers and this year they are trying some trefoil.

This area, this farm, and these farmers are entrenched in Canadian history. What the future holds for this family farm is not much different than what many farm families are challenged with today. Who will continue this proud heritage? Some farmers have commented to me under the present pressure of government "red tape" controls, environmental issues, low prices, a consumer that doesn't know or shows they even care where their food comes from, they wonder where agriculture is heading in Canada. Is it right to look to your family to continue this business of farming? I am sure generations of earlier farmers asked similar questions. But one only needs to look at proud farm heritage, the pride the farmer takes in the growing of crops and the raising of livestock, knowing that what he does is good.

The Palmeters are involved in farm and community organizations. Robert is a Director of Farmers Dairy and the Grand Pre Marsh Body, treasurer of the Wolfville Lions Club. Ann has been involved in Wolfville Figure Skating Club for approximately twenty four years and is also on the Provincial Body. She is a member of the King's County Women's Association and North Grand Pre Community Assocation.

I want to thank and extend best wishes for a bountiful harvest to the family of Robert and Ann Palmeter for allowing us to visit their family farm.

I also want to thank Don Conrad. I have traveled with Don a number of days on my visits to the east coast. Don always goes out of his way to ensure that I see the historical value of his area, the agriculture, the heritage and the people.

# Hay Sampling for Forage Quality *continued from Page 2*

just done. Make sure the lab will grind the whole sample you send them.

8. Handle the Sample Correctly

Seal the 20-core sample in a plastic bag making sure to identify the sample by origin (your name, field, variety, etc.). Protect the sample from heat and get it to the lab as soon as possible.

9. Don't split samples without grinding first

You may want to check the analysis of your sample by having more than one lab do the analysis. Don't split your 20-core sample into two and send to two different labs. This type of sub-sampling defeats the purpose of random sampling and will generate 5-7 percentage points difference in results by itself. You need to send the whole 20-core sample to the lab, ensure that they will grind the whole sample, and ask them to return to you the remainder of the sample that they don't use during the analysis. This portion is what you send to the second lab for verification.

10. Choose a National Forage Testing Association – Certified Lab

Labs certified by the NFTA are tested regularly and have demonstrated their ability to produce reliable results. For example, both Agri-Analyse (Lennoxville, QC, T:819-821-2152) or Agri-Food Laboratories (Guelph, ON, T:519-837-1600) are certified. The Research Department at PICKSEED has worked with both labs and found them excellent, but there are other certified labs that

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# Protection against insects and weeds just got even better...

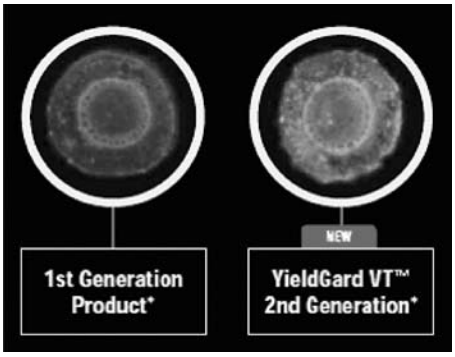
*Matt Anderson, Research Associate, Pickseed Canada Inc.*

**PICKSEED has released** its newest corn hybrids containing YieldGard VT™ Triple technology: 2688 VT3 (2625 CHU), 2788 VT3 (2750 CHU) and 2988 VT3 (2975 CHU). Along with them come improved consistency, better insect protection and increased yield potential.

Traditionally, when breeding a new corn hybrid a gene gun would be used to insert traits for herbicide tolerance and insect protection each into separate plants. These plants are then crossed to produce a new hybrid. This new hybrid would contain the multiple traits but would have a relatively low level of expression.

YieldGard VT science uses VecTran™ technology to put all of the most advanced insect and weed-control traits stacked into one seed in a single DNA-insertion process. Two or more genes are inserted together side-by-side into the plant by and *Agrobacterium*-mediated transfer process. This more natural insertion mechanism provides elite germplasm with high trait expression and permits a much faster rate of development of new hybrids.

YieldGard VT Triple combines genes for resistance to corn rootworm, to Eastern corn borer and to Roundup® in one hybrid to maximize your corn's genetic potential. Over 30,000 samplings of roots in the field have proven that YieldGard VT3 gives highly active and more consistent expression of the rootworm gene compared to the older YieldGard® Rootworm / YieldGard Plus versions. The insect resistance gene is under the genetic control of a promoter gene (a genetic on/off switch) that turns on the gene to produce the insect-control protein and more effectively distribute it throughout the root system. This root protection, in combination with YieldGard Corn Borer stalk protection and the efficiency of Roundup Ready® 2 Technology provide more uptake and translocation of moisture and nutrients because of better root health, less lodging because of better stalk health, less ear drop and clean fields.




*Root cross-sections comparing the protein expression that provides the rootworm protection - first generation YieldGard Rootworm versus the new YieldGard VT. The level of protein expression is indicated by the coloration in the root. It is evident that the YieldGard VT root is expressing more protein more evenly distributed throughout the root.*

To date, the yield data on YieldGard VT technology is limited because it is so new. Research trials conducted by Monsanto in 2004 and 2005 showed an 11.6 bu/acre advantage of the new YieldGard VT Triple over conventional seed treated with high rate Poncho® 1250 to control rootworm. However, this yield advantage includes the benefits of YieldGard Corn Borer technology as well, which usually accounts for a 5.5 bu/acre gain, leaving the YieldGard VT Rootworm advantage at 6.1 bu/acre. Another trial compared a YieldGard VT Rootworm hybrid against conventional seed treated with Poncho 1250; noting a 9 bu/acre advantage of the new YieldGard VT Rootworm trait. Therefore, based on Monsanto testing thus far, they are stating an overall 6-9 bu/acre advantage of the new YieldGard VT Rootworm trait over high rate Poncho 1250.

The new PICKSEED VT3 corn hybrids come along with even more advantages to the grower. All VT3 hybrids will be treated with Poncho® 250 to provide broad-spectrum, early season insect control that's on the seed. This in combination with YieldGard VT Triple technology provides growers an alternative to using soil applied insecticides that offers increased convenience, safety and overall reduced cost per acre.

In summary, your top performing PICKSEED hybrids have exactly what they need to reach their maximum yield potential.

# Hay Sampling for Forage Quality *continued from Page 3*

are equally committed to producing good results (visit the NFTA to see a list of certified labs). An alternative is to choose a lab that is part of the American Association of Feed Control Officials. This group also conducts verification programs of member labs to ensure consistency and accuracy among participating labs.

# Tips for Sampling Haylage and Silage

Take your samples as the silage is placed in the silo or in the bag. Silos with excessive seepage will need to be re-sampled at feed out.

Use the same 'lot' approach as for dry hay – take samples from specific cuts, fields, and varieties, and make sure the samples are random and in sufficient number.

Take at least 20 samples per 'lot', and take them as randomly as possible. If you expect to take 5 wagons of silage from a 'lot' then draw 4 samples from each wagon (more if the silage is variable due to differing weed content or grass content, etc.). Take grab samples and mix them thoroughly. The sooner the samples are placed in a refrigerator or freezer the better. Once the 'lot' has been sampled (20 or more samples) mix the samples very thoroughly, make sure that this composite sample is roughly ½ pound (250 grams) in total weight, bag the sample in a well-sealed plastic bag or container, chill or freeze it, identify the sample so you will know what it is and send it to the lab as quickly as possible.

The value of the analysis you get will only be as good as the sample you send, so make sure the sample is random, that you use at least 20 'grabs' to make up the sample, that it is well mixed, of the right size and that the sample is kept chilled and delivered to the lab as quickly as possible.

Don't subdivide the sample if you want two labs to test the same sample. Instead, send the whole sample to one lab, ensure that they will grind the whole sample without splitting it, and ask them to send back the portion that they aren't using.

Different lots of silage in the silo can be identified by throwing a marker into the silage as you fill. For example you can use different colours of styrofoam egg cartons.

If you are sampling at feed out, then aim to take a final sample of ½ pound (250 grams) in total weight based on grab sampling over a period of 2 days. Take a sample from the morning and evening feedings each day. Store the grab-samples in sealed bags in a refrigerator or freezer, then at the end of sampling, mix the grabs into one final sample. Chill, or preferably freeze, the sample, label it properly and send it to the lab as quickly as possible.

## Join the PICKSEED Team

Have you considered a career in selling seed? Why not join the PICKSEED team. PICKSEED has some key areas where we are looking for sales agents in Eastern Canada.

Our current sales agents have a broad range of background and experience and their talent, knowledge and emphasis on customer service combined with the quality and performance of our forage, hybrid corn and turfgrass varieties together makes an excellent recipe for success.

If you are interested, call PICKSEED's provincial Sales Manager for more details. Paul Wight 519-717-2226 (Ontario & Atlantic provinces) or Victor Lefebvre 450-230-0815 (Québec).

## About The Forage Informer

The Forage Informer is an information publication produced and distributed by PICKSEED. It is available in English and French versions. Call us and we will send you a copy of the Forage Informer in the language of your choice.

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