

# Genetic Trends®

Summer 2007

Vol. 59 No. 3

## WHAT'S INSIDE:

- Delivering Fertility First
- Health Trait Series:  
Maximizing Profit
- Managing Silage
- Spotlight on Summer Interns

Accelerated Genetics®



# Delivering Semen With Fertility First

Accelerated Genetics is strongly committed to 'Fertility First' and this carries through to delivering the highest quality of semen to every customer, no matter where they are located in the world.

Millions of units of semen transfer between our sales representatives and customers each year. And each of these transfers are carefully orchestrated.

Each Accelerated Genetics employee is meticulously trained on semen handling, A.I. techniques and liquid nitrogen safety. And they know the value of each unit of semen and want to ensure that it stays at its highest level of fertility. Therefore, they are extremely cautious when handling each cane or unit of semen.



Photos by Jana Olson and Charitie Muenzenberger



A.I. Technician, Ken Montsma is preparing an A.I. gun. Every day he breeds numerous cows, and delivering the highest quality semen is at the top of his priorities, as his role breeding a cow is just one part of the process in getting cows pregnant.

Jim Iverson, Sales Representative, adds liquid nitrogen into his transfer tank so he can fill his customer's semen tank with liquid nitrogen, ensuring the fertility of his customer's genetic investment.

### Experience Counts

When it comes to handling and transferring semen, experience counts. And Accelerated Genetics sales representatives and A.I. technicians have years experience working with semen. When each employee are hired, they go through a rigorous training period that includes classroom time, in addition to riding and working with seasoned employees before they start working on their own. Furthermore, throughout each employee's tenure, they continue to receive training, so that they stay at peak performance and up-to-date with the latest techniques and procedures.

Accelerated Genetics sales representative will work on a six to seven week route that will take them through all of their territory, calling on customers. Daily on each farm the sales representative visits, they will inspect semen tanks, fill nitrogen levels, transfer semen into a customer's tank along with sharing news of the industry or assist producers with reproduction concerns.

"I take liquid nitrogen tank measurements at each farm I visit, just to be safe," says Sales Representative Todd Wenzel. "And the semen tank I have in my truck allows me to never take canes out of the liquid nitrogen before it is sold. It is really important that the semen is coming directly from Accelerated Genetics and that

Article continued on page 4.

**Editor:** Kari A. Stanek

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### Accelerated Genetics Vision Statement

We are a global provider of bovine genetics and research, reproductive services and solution-based animal health products. Our vision is to be the forerunner in developing innovative technologies and exceptional services that will aid our customers in achieving their ultimate herd goals.

## Features and News

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### On The Cover

Accelerated Genetics delivers high quality semen to producers around the world with Fertility First as the main goal. Here one of Accelerated Genetics dedicated sales representatives fills a customer's semen tank with liquid nitrogen.

Photo by: Lana Olson

### Accelerated Genetics®



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Article continued from page 2.

it is handled minimally before given to a customer, ensuring the fertility of semen.”

An A.I. Technician’s typical day includes, breeding cows, recording reproduction data as well as assisting customers with any reproductive troubleshooting. A.I. technicians manage their semen tanks very carefully, and they are also concerned about using proper semen handling and insemination techniques. They ensure that each unit of semen is kept at its highest level of fertility as it reaches the cow or heifer.

Many of the practices that sales representatives and A.I. technicians do everyday are routine, yet, they know the important role they play with helping getting cows pregnant. “Pregnancy is my first priority for customers, pregnant cows are money cows!” comments Allen Hanselman, Sales Representative.

**Troubleshooting**

“Producers are putting value on results. The results they want are a pregnancy and that’s where fertility comes in and our role in delivering highly fertile semen,” states John Merrill, Sales Representative.



Photos by Lana Olson and Charlotte Maczenberger

Above: A.I. Technician, Renis Delgado, assists one of his customers with their reproduction records, ensuring that data is inputted correctly. Then the farm owners can properly track their herd’s conception and fertility data. This is another service of Accelerated Genetics as is part of the ‘Fertility First’ standard.

Below left: An important job that all of our sales representatives provide is tracking the liquid nitrogen levels in customer semen storage tanks and then filling the tanks with liquid nitrogen when they become low. Part of this tracking also includes watching for tanks that may go bad and may need to be replaced. Dave Sattler, Sales Representative, fills a customer’s tank with liquid nitrogen, ensuring the fertility of semen.



With customers demanding results, its key for every Accelerated Genetics sales representative to stay on top of any concerns producers may have about their herd’s reproductive program. And when the reproductive results are not as expected, sales representatives begin troubleshooting the issue.

Many times they will begin with an inspection of the semen tank and location of it. Followed by an inspection of the water bath and A.I. equipment. Then will visit with producers about their semen handling and A.I. technique. Other questions, they might ask may include is neck plug in place all the time, have there been any changes in the tank like condensation or Frost forming around the tank neck and the list goes on. Then the sales representative will continue to work with the customer

until they are getting satisfactory results. “Many times, its a little problem causing big reproductive issues on a farm, and that is why its important to handle the little issues.”

Overall Accelerated Genetics sales reps know the value of a pregnancy and they ensure that every delivery of semen is of the highest quality.

**Committed To Fertility First**

In the Winter issue of *Genetic Trends* you read about how Accelerated Genetics commitment to ‘Fertility First’ starts with our sires and their care. In the Spring Issue of *Genetic Trends* the story continued with the people behind the product that make ‘Fertility First’ a reality through our semen processing, storage and distribution. And now the story concludes with the delivery of semen either to YOUR semen tank or directly into YOUR cows! ‘Fertility First’ is the Accelerated Genetics standard.



**Kari Stanek**  
Communications & Public Relations Coordinator



**Lana Olson**  
Public Relations & Advertising Intern

# Global Appeal For Accelerated Genetics

People from around the globe have been drawn to the United States to visit Accelerated Genetics and to view their sire progeny throughout the country this spring and summer. With semen sales soaring this year, it is no wonder that Accelerated Genetics sires are being heavily sought after by producers from around the world.

The most popularly viewed sire progeny include: 014HO003597 **Potter**, 014HO04026 **Airraid**, 014HO04099 **Billion**, 014HO04056 **Decker**, 014HO03913 **Harry**, 014HO03831 **Marion**, 014HO04148 **Nifty** and

014HO04032 **Ashton** along with many other favorites.

These tours would not be possible without the Accelerated Genetics customers here in the U.S. that have graciously opened their farms for these guests to view their herds and sire progeny. Not only do these producers share their genetic results they also share some of their management practices that have helped them be successful. Accelerated Genetics very much appreciates all of the herds we work with and would like to extend a heartfelt 'thank you' to all of the producers that have hosted tours.

During these tours an Accelerated Genetics staff member leads the adventure from farm to farm. With plenty of driving time between some farms it provides a great opportunity to answer questions that guests have. Most commonly we were asked about the company's new semen technologies Affirm™ and Bovatel™, which gives us plenty to talk about. In addition we also made sure to share about the exciting building and expansion projects at our Westby Production Facility!

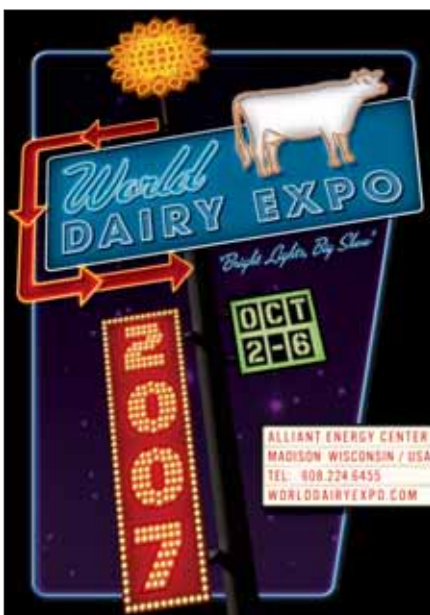
**Trent Gabler & Lindsay Morris**  
Marketing Services Interns



Hailing from Argentina, this group visited farms and sire progeny in California.



In June, a group from World Wide Sires - UK viewed sire progeny in Wisconsin.



## World Dairy Expo Preview

The dairy industry's spotlight will be trained on Madison, Wisconsin, when World Dairy Expo takes place October 2-6, 2007. It is, after all, where the dairy industry meets – a brilliant place to exchange ideas, a dazzling display of dairy cattle and the brightest showcase of dairy technology, products and services geared to today's dairy producer.

It's the place for world-class competition among the country's top dairy cattle exhibitors, with seven national and international breed shows, the Kingsmill Farm II International

Futurity as well as six breed sales held on the grounds. More than 2,000 head of cattle are expected to parade across the colored shavings. It's also home to national and international dairy judging and skills contests at the 4-H, FFA, Intercollegiate and Post-Secondary level.

Add more than 1,500 commercial exhibits, including Accelerated Genetics. World Dairy Expo is the destination of choice this October. **Come visit Accelerated Genetics booths in the Coliseum at 191-193 and in the Exhibition Hall at 3701-3703!**

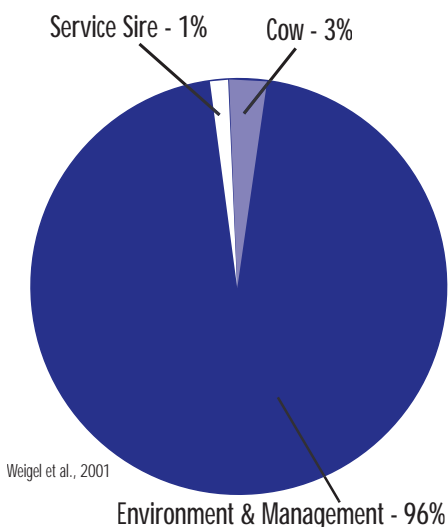
# Reproductive Challenges: Are You Looking At The Whole Picture

High quality semen has always been a priority for all Accelerated Genetics employees. Today, with a unique combination of factors which includes highly trained and committed personnel, new semen processing technologies, state-of-the-art facilities and equipment, Accelerated Genetics has a new standard to fertility with Affirm™. As Affirm semen continues breaking conception records in many farms around the country and even the world, there are more and more producers meticulously evaluating their weekly pregnancy check report.

Dairy producers today are keenly aware of any slight variation in their herd's conception rate. There is nothing wrong with the fine detail that producers evaluate their herd, as long as any conclusion from such evaluation is based on a reliable number of inseminations and all the potential explanations for that matter have been analyzed. This practice may help track reproductive issues before they become a real problem in a reproduction program.

The downside of this intense scrutiny is when producers assume that service sire is the only variable affecting a cow becoming pregnant. In that perspective, service sire becomes the only responsible factor of any variation, good or bad, on conception rate. Unfortunately the most important

**Figure 1. Variables Affecting Conception**



factors affecting the variation in fertility are subjectively discarded in this case.

From Figure 1 below, it is shown that the service sire is responsible only for 1% of the variation in fertility, whereas the strongest impact is due to environmental and management factors. These latter factors involve nutrition, facilities, fresh cow program, transition cow program, synchronization protocols, infectious diseases, A.I. technique, semen handling, environmental temperature, heat detection accuracy, etc.

### Nutrition

Low body condition score (BCS) reflects nutritional limitations to cope with maintenance, milk production and reproduction requirements. In fact, this is the order of priorities the cow follows to deviate nutrients to these three physiological functions. Thus, reproduction is the first physiological function affected under nutritional deficiencies. Low BCS may indicate the severity of the negative energy balance post calving, or deficient fresh or transition cow program.

Under a sound nutritional plan, cows start recovering from NEB after 40-45 DIM, thereby, before day 45 they're still losing BCS in most cases. Fertility has been demonstrated to be lower when she is losing BCS, and higher when she is gaining BCS at first insemination. Breeding cows before 50 DIM is not a recommended practice for this reason.

Also, the change (points gained or lost) in BCS from calving to first service has been reported to be more important than BCS itself. Research from the University of California - Davis has also linked anovular condition to low BCS in dairy cows when BCS is lower than 2.5.

### Facilities

Overcrowding, stall size, bunk space, ventilation, cooling systems, concrete floor, etc. have a direct effect on cow comfort and induced stress; affecting milk production and reproduction outcomes. In

reproduction, effects are observed in lower heat detection rates (missed heats) and embryonic losses.

### Synchronization Protocols

Initiation of Timed A.I. (TAI) protocols too early in lactation result in low fertility, especially when TAI is scheduled to be conducted before 60-70 DIM. Other factors to consider include type of protocol, compliance, and doses (see *Genetic Trends* article, Winter 2006).

### Infectious Diseases

Many viral or bacterial diseases may induce early embryonic loss or abortion later in gestation. (BVD, IBR, Neospora, Campylobacter, Leptospirosis, Brucellosis, etc). Talk to your veterinarian about these and other infectious diseases, and have him design a vaccination program according to your geographical location and level of exposure. Abortion may also be caused by toxins found in plants (mycotoxins, nitrates, etc.)

### Artificial Insemination

It involves all human activities around artificial breeding. They include heat detection accuracy, semen transport, semen handling, A.I. technique, and A.I. equipment. Your Accelerated Genetics representative will be glad to assist you with appropriate training and written materials on these and other artificial insemination topics.

A successful reproduction program is the foundation for a profitable dairy operation. Use your reproduction records to monitor your reproduction progress and to fix management details as you move forward. Semen will always be responsible for half of the fertilization process as a biological event. However, remember that there are many other external factors that are responsible for more than 95% on the variation on conception rate.



**Humberto Rivera**  
Reproductive Specialist

*Genetic Trends* - Summer 2007

# Maximize Your Profit With Long-Lasting, Trouble-Free Cows!

You want to maximize your herd's profit by breeding cows for high production levels and excellent health traits – cows that breed back easily, have a low incidence of mastitis, and are productive members of your herd for several lactations. In the United States concerns about high replacement cow costs have driven increased interest as well. That's why Health Traits are an important part of your genetics program. Sires that rank high on health traits like Productive Life (PL), Somatic Cell Score (SCS), and Daughter Pregnancy Rate (DPR), as well as lower Calving Ease (CE) and Stillbirth

(SB), produce cows that are very valuable to your dairy operation.

Before the coined phrase 'Health Traits' became popular, Accelerated Genetics saw the importance of producing long-lasting, trouble-free cows and began selecting genetic packages for the PACE young sire program that would meet the modern market demands. That's why Accelerated Genetics offers many health trait-leading sires, including 014HO03597 **Potter**, 014HO04148 **Nifty**, 014HO02586 **Sailor**, and 014HO04239 **Travel**.

Below are descriptions for each health trait and in upcoming issues of *Genetic Trends*, Accelerated Genetics will further explain the various Health Traits now available, what each health trait measures, how to compare sires within the industry and how will using health trait-leading sires will benefit your herd.

Health Traits have already become widely utilized by producers around the globe using these selection tools to create more profitable cows.

## HEALTH TRAIT DESCRIPTIONS:

**PL (PRODUCTIVE LIFE)** - A genetic ranking of a bull's daughter's total months in milk until she leaves the herd or 7 lactations whichever comes first. Credits are based upon standard lactation curves, with highest credits at the peak of lactation and diminishing credits across the lactation. Credit is now given for days beyond 305 days in a lactation. The standard is set such that a second lactation cow with 305 days in milk gets 10 months credit. First lactation gets less credit than later lactations. Sire PL values range from about -7.0 to 7.0 months. The heritability of PL is 8.5%.

**DPR (DAUGHTER PREGNANCY RATE)** - The percentage of non-pregnant cows that become pregnant during each 21-day period. A DPR of 1.0 implies that daughters are 1% more likely to become pregnant during a given 21 day estrus cycle than daughters of a bull with an evaluation of zero. An increase of 1.0 in PTA DPR equals a decrease of 4 days in PTA days open. Genetic base is all cows born in 2000.

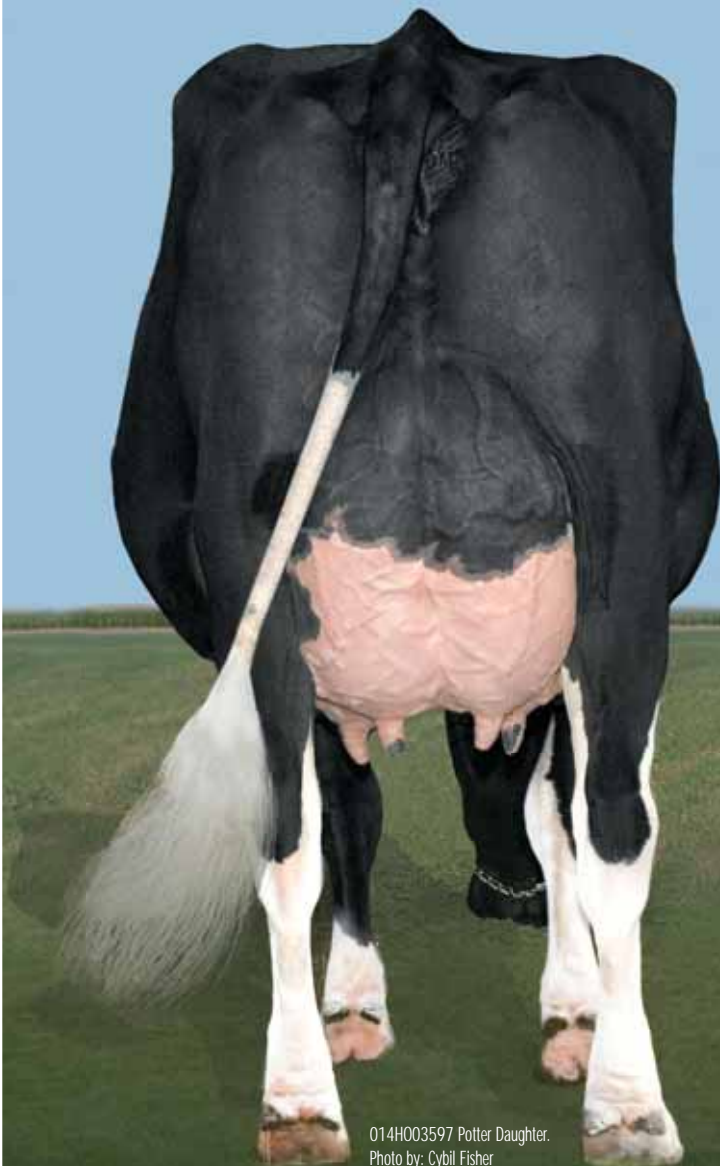
**SCS (SOMATIC CELL SCORE)** - a genetic measure of a bull's daughter average SCS across her lactation. Genetic base is 3.00 for all breeds. Bull PTAs for SCS range from about 2.50 to 3.50. It is important to know that LOWER numbers are more favorable. The heritability of SCS is 12%.

**SSCE (SERVICE SIRE CALVING EASE)** – An estimation of the percent of difficult births for first-calf heifers. Calving Ease values are the average effect of male and female calves and average effect across season of calving. Genetic Base is all sires born in 2000, they average 7.86% for Holstein and 4.84% for Brown Swiss.

**DCE (DAUGHTER CALVING EASE)** – Measures the influence of the sire of the cow on calving ease. This evaluation represents a combination of the cow's ability to calve easily and the cow's propensity to have large calves. Genetic Base is all sires born in 1995, they average 8.68% for Holstein and 5.21% for Brown Swiss.

**SSB (SIRE STILLBIRTH)** – Evaluations are expressed as percent stillbirth in Holsteins, where stillbirth is defined as a calf born dead or dies within 48 hours of birth. The genetic base averages 7.89% sire stillbirth for dams of all ages.

**DSB (DAUGHTER STILLBIRTH)** – Measures the influence of the sire of the cow having the calf (daughter) on the livability of the calf being born. The genetic base averages 8.58% daughter stillbirth for dams of all ages.



014HO03597 Potter Daughter.  
Photo by: Cybil Fisher

# Key Silage Management Opportunities

Regardless of the size of a dairy, problems occur in every silage program. Solutions to several common problems in bunker silos, drive-over piles, and silage bags are presented here.

You should discuss these key silage management opportunities with everyone on your team.

## Minimizing Dry Matter (DM) and Nutrient Losses from Field to Feed Bunk

- Harvest at the optimum stage of maturity and DM content.
- Use the correct size of bunker or pile, and do not over-fill bunkers or piles.
- Employ well-trained, experienced people, especially those who operate the forage harvester, pack tractor, or bagging machine.
- Apply AccelEnsile inoculant at the forage harvester.
- Achieve a uniform packing density (a minimum of 15 lb of DM per ft<sup>3</sup>).
- Provide an effective seal to the surface and consider using double polyethylene sheets or an oxygen barrier film (Silostop).
- Follow proper face management practices during the entire feedout period.

## Preventing Excessive Surface-Spoiled Silage

- Achieve a uniform density (minimum of 12 lbs of DM per cubic ft) within the top 3 ft of the silage surface.
- Shape all surfaces so water drains off the bunker or pile. The back, front, and side slopes should not exceed a 3 to 1 slope.
- Seal the forage surface immediately after filling is finished.

- Use two sheets of plastic or a sheet of Silostop under a sheet of plastic.
- Overlap the sheets that cover the forage surface by a minimum of 3 to 4 feet.
- Sheets should reach 4 to 6 feet off the surface on the perimeter of a pile.
- Put uniform weight over the entire surface, and double the weight placed on overlaps.
  - Sandbags, filled with pea gravel, are an effective way to anchor overlapping sheets, and sandbags provide a heavy, uniform weight at the interface of the sheets and bunker wall.
  - A 6-inch to 12-inch layer of sand or soil or sandbags is an effective way to anchor sheets around the perimeter of piles.



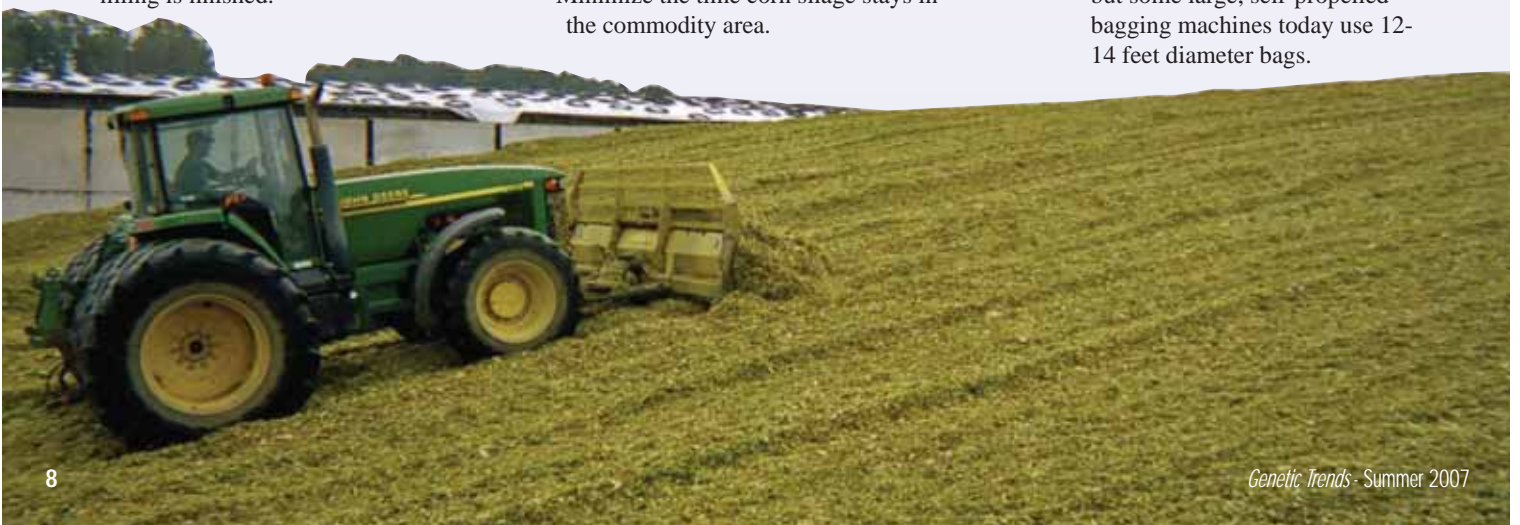
## Maintaining Aerobically Stable Corn Silage During Feedout

- The feedout face should be a smooth surface that is perpendicular to the floor and sides of a bunker or pile.
- Shave silage down the face and never 'dig' the bucket into the bottom of the silage face.
- Remove 6 to 12 inches daily in cold weather months; 12 to 18 inches daily in warm months.
- Minimize the time corn silage stays in the commodity area.

- It might be necessary to remove silage from a bunker or pile and move it the commodity area two times daily.
- Consider using a silage facer as an alternative to a front-end loader.
- Discard all surface-spoiled silage because it has a significant negative effect on DM intake and nutrient digestibility.

## Avoiding Problems with Bagged Silage

- Bags should be located on a well-drained, firm surface and preferably on concrete or asphalt.
  - Keep bags out of the mud.
  - Provide feeders easy access to all bags.
- Low silage DM densities are a problem in bags. A skilled bagging machine operator is essential to insure a consistent, uniform fill and achieve an acceptable density.
- Mark (paint) bags with a number, date, crop, farm/field, and which cattle get fed the silage.
- Record the DM content of all forage going into a bag, especially field-wilted, hay-crop silage, and mark the location of potentially 'problematic silage' (i.e., too wet, too dry, too mature, etc.).
- Do not bag alfalfa 'too wet'. The DM target should always be 35 to 45 percent.
- Check all bags at least 3 times per week and mend/patch holes and punctures.
- The silage removal rate at feedout must be sufficient to prevent the exposed silage from heating and spoiling, especially if multiple bags are open at same time.
  - Caution: The first bags used in the 1970s had diameters of 8-9 feet, but some large, self-propelled bagging machines today use 12-14 feet diameter bags.





Photos provided by Keith Bolsen & Associates

- Remove only enough plastic for silage needed daily.

### Safety Issues: Common Hazards and Preventive Measures

Consistently protecting workers, livestock, equipment, and property at harvest, filling, and feeding does not occur without thought, preparation, and training.

#### • Tractor Roll-over

- Roll-over protective structures create a zone of protection around the tractor operator.
- Form a progressive wedge of forage, which has a minimum slope of 3 to 1 to reduce the risk of a tractor roll-over.
- Use low-clearance, wide front end tractors and add weights to the front and back of the tractors to improve stability.

#### • Crushed by an avalanche/collapsing silage

- The number one factor contributing to injuries or deaths from silage avalanches is overfilled bunkers and piles!
- Do not fill higher than the unloading equipment can reach safely, and typically, an unloader can reach a height of 12 to 14 feet.



- Use proper unloading technique. Undercutting creates an overhang of silage that can loosen and tumble to the floor.
- Never allow people to stand near the feeding face, and a rule-of-thumb is never being closer to the feeding face than three times its height.

#### • Complacency

- Think safety first!
- Even the best employee can become frustrated with malfunctioning equipment or poor weather conditions and take a hazardous shortcut or risky action.

### Profitability of AccelEnsile-Treated Silage for Lactating Dairy Cows

Many dairy producers, nutritionists, and custom silage operators question whether it is cost effective to apply a lactic acid bacterial inoculant when making corn silage and alfalfa haylage. We developed spreadsheets to calculate the profitability of inoculating forages with **AccelEnsile**, available exclusively from Accelerated Genetics, and an example is presented here.



The dairy herd in this example had an avg. milk production of 75 lbs per cow per day and a ration DM intake of 52 lbs. The

increase in net income with **AccelEnsile**-treated corn silage, calculated on a per cow per day and per cow per year basis, comes from improvements in both forage preservation and silage utilization. The additional 'cow days' per ton of crop ensiled because of the increased silage recovery (1.5 percentage units) and the increased milk per cow per day (0.25 lbs) gave an added net income of 16.6¢ per cow per day and \$50.62 per cow per year. The increase in net return per ton of whole-plant corn ensiled with **AccelEnsile** was \$7.13 in this example.

The additional 'cow days' per ton of alfalfa ensiled from the increased haylage DM recovery (2.0 percentage units) and the increased milk per cow per day (0.25 lbs) gave an added net income of 22.0¢ per cow per day and \$67.08 per cow per year. The increase in net return per ton of alfalfa ensiled with **AccelEnsile** was \$19.90 in this example.



**Keith Bolsen**  
Professor Emeritus  
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**Ruthie Bolsen**  
Managing Director of  
Keith Bolsen & Associates

More complete articles on silage management practices can be downloaded from: [www.oznet.ksu.edu/pr\\_silage](http://www.oznet.ksu.edu/pr_silage)

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# Use Caution With Liquid Nitrogen

Most dairy farms have a liquid nitrogen tank for holding semen or embryos. Here is more information about Nitrogen in Liquid and Gas forms and why you should always use caution with your liquid nitrogen tank.

## Nitrogen Characteristics:

- Colorless, odorless as a gas or liquid
- Boiling point of -320° F(-196° C)
- Non-toxic, non-explosive, nonflammable
- An asphyxiant

Nitrogen is a non-toxic gas which constitutes 78% of the air we breath. A small amount of liquid nitrogen will vaporize into a large amount of gas. One liter of liquid nitrogen (LN2) becomes 24.6 cubic feet of gas which,

- a. Has a greater density than the air we breath
- b. Will begin concentrating at ground level
- c. Will dilute the concentration of oxygen in the air.

## Primary Dangers of Liquid Nitrogen and Nitrogen Gas:

1. Suffocation - injury, permanent brain damage, death. Symptoms:

- a. Dizziness
- b. Tingling sensation in the extremities
- c. Nausea and vomiting
- d. Loss of consciousness
- e. Death

2. Burns or frostbite.

## Nitrogen Precautions

### Serious Injuries are Preventable by:

1. Handling liquid nitrogen in a well-ventilated area. Avoid use in unventilated-confined areas.
2. Disposing of liquid nitrogen by removing the neck cork, allowing the LN2 to evaporate in a well-ventilated area.
3. Avoid spilling LN2, especially near water.
4. Handle liquid nitrogen like boiling water:
  - a. Avoid splashing.
  - b. Wear loose-fitting, insulated, leather gloves,
  - c. Wear approved safety glasses,
  - d. Wear cuff-less, long pants and long-sleeved shirt,
  - e. Use only approved equipment to handle liquid nitrogen.

## Nitrogen - Emergency Action

1. In case of a liquid nitrogen spill:
  - a. Keep unnecessary people away from scene
  - b. Isolate the area until properly ventilated (O2 level above 19.5%),
  - c. Call 911!
2. In case of asphyxiation:
  - a. Move the victim to an area with normal atmosphere,
  - b. Call for medical assistance, 911
  - c. If trained in CPR and First Aid:
    - i. Administer oxygen if the victim has difficulty breathing,
    - ii. Perform artificial respiration if the victim has stopped breathing,
    - iii. Perform CPR if the victim has no pulse.
3. In case of liquid nitrogen burns, restore the affected area to normal body temperature:
  - a. Flush the affected area with warm water (105-110 F). Do not rub the affected area
  - b. Cover the affected area with a sterile bandage
  - c. Seek medical attention.

## Exclusive Premiere Showing of Westby Production Facility

Accelerated Genetics opened the doors to the brand new state-of-the-art Semen Processing Laboratory and Distribution Center for an 'Exclusive Premiere Showing' to an elite group of media throughout the U.S. on July 10, 2007.

This rare opportunity allowed the media to view portions the new facilities, learn more about the recent technology innovations – Affirm™ and Bovatel™,

view a live semen collection as well as see the current bull-housing building projects! After the tour and lunch, media were given on-site interview opportunities with key Accelerated Genetics staff.

Overall this event gave Accelerated Genetics the opportunity to share its exciting growth, innovations, exceptional sires and valuable employees!



Jim Martin, Vice President of Semen Production and Technology, explains the semen processing procedures as the media look into the laboratory through a specially designed, biosecure viewing window. Additionally, guests were treated to a magnified view of semen shown on the video monitors.



At left is the West View 3 Sires In-Waiting Barn located on the West Farm of the Accelerated Genetics Westby Production Facility. This barn is almost completed and by mid-August it should be ready for bulls to move into it. This barn will house 54 sires in individual pens.



The photos to the right are of the Specialty Housing Barn and Collection Facility. Construction of this building is also nearing completion, with a move-in date set for sometime in September. This barn will house 24 beef and dairy bulls. This building will also have 12 outruns for bulls to exercise.



Photos by: Lana Olson and Leslie Schmitt

# Strength In All Dairy Breeds



**Devan Funk**  
Genetic Development  
Manager

With the August 2007 Dairy Sire Summary brings the last of the 4 times a year proof releases. The next evaluation release date is in January 2008 and then there will be just 3 releases per year. The August evaluations show Accelerated Genetics is strong in all breeds and in many areas within each breed—whether you are looking for high NM\$, PL, PTAT, UDC or Total Performance sires—Accelerated Genetics has sires that rank well for all criteria.

In the Holstein breed, one trait Accelerated Genetics excels in is Productive Life (PL), with 5 sires at or above +5.0. Names like 014HO02586 **Sailor** (+6.2), 014HO03597 **Potter** (+5.0) and 014HO03451 **Alfie** (+5.9) are 2<sup>nd</sup> crop sires with high reliable data suggesting that their daughters will survive well in all types of environments. 014HO04148 **Nifty** (+5.8) and 014HO03571 **Dutch Score** (+5.0) are also very high in PL.

Besides being a breed leader for PL, **Nifty** excels in many other areas as well. Among health trait leaders, he is an exceptional production improver, now over +1100 PTAM at 85%R. His DPR increased nicely to +2.2 as did his NM\$ to +578. **Nifty** also ranks 10<sup>th</sup> in TPI at +1840. He will continue to see use as a mating sire of sons.

014HO04099 **Billion** was another highlight of the August run. He made great increases in the health trait areas of PL (now at +3.7), SCS (now at 2.59) and SCE (now at 6%). His NM\$ is still impressive at +502 and is 5<sup>th</sup> in the breed for TPI at +1864.

Another sire with a nice calving ease improvement is 014HO04026 **Airraid**. Now at 7% SCE, **Airraid** can be used effectively on virgin heifers. Along with **Billion**, **Airraid** is arguably one the breed's best BW Marshall sons available. He ranks 15<sup>th</sup> for TPI and is still amongst the best for type at +3.29 PTAT.

Eight new Holsteins enter the lineup and their pedigrees include four new Garter sons, two sons by **Boss Iron**, one by **Lee** and one by **Ito**.

014HO04371 **Belt** is the most impressive of the Garter sons with +2009 PTAM, +1.39 PTAT, +1.33UDC and +1.91 FLC. His mother is an outstanding EX-91 Rubytom daughter that produced 2,180 fat in the Bomaz herd. Several family members to **Belt** have been returned to active A.I. status.

014HO04372 **Billy Bob** is a Garter maternal brother to 014HO04099 **Billion**. **Billy Bob** is a milk improver at +1789 PTAM and is +1674 TPI.

The other two Garter sons are both high for type, 014HO04346 **Sage** and 014HO04360 **Drevil**. **Sage** comes from 014HO03037 **Skip**'s family. He is an excellent fat improver (+56 PTAF and +.10% F) and transmits superb udders (+2.47 UDC) and is a high type bull as well (+2.17 PTAT). **Drevil** is +2.54 PTAT and over 1.75 on both UDC and FLC. He is also a high fat improver being +52 PTAF and +.14% F.

In 014HO04368 **Kane**, Accelerated Genetics adds another 014HO02736 **Ito** son to its lineup. Like **Ito**, **Kane** excels in type, udders and health traits. At +2.35 PTAT, He is an exceptional type improver and his daughters show great udder attachments with a deep crease and good teat placement. Furthermore, he is a 7% SCE sire and looks good on all other calving traits.

From Italy come two new **Boss Iron** sons, 198HO00100 **Active** and 198HO00101 **Tempting**. **Active** is a very high for NM\$ at +555 and TPI at +1843. His dam is a **Manfred** daughter whom when combined with **Boss Iron** made logical sense for outstanding health traits. **Tempting** comes from an **Mtoto** dam that traces back to **Boss Iron**'s maternal family. Both **Active** and **Tempting** are tremendous fat improvers and look good for PL, DPR, SCS and SCE.

218HO00102 **TGV** is a **Lee** son from a **Mtoto** dam. **TGV** is +2.01 PTAT and should sire tall, wide cows with great feet and legs.

In the Jersey breed, 014JE00408 **Jimmie** made great strides by jumping into the top 10 for JPI, now at +207. After adding 20 scored daughters and 11 for production, **Jimmie** made significant increases in nearly every area. At +1.7 PTAT, +5.72 JUI and +2.8 PL, **Jimmie** will be in high demand with most Jersey breeders.

014JE00406 **Blueprint** improved to +205 JPI. He made nice increases in milk and protein. With the addition of 335 daughters, 014JE00365 **Rebel** saw improvement in his NM to \$+358. He also had increases in PL, PTAM, PTAP and SCS. **Rebel**'s JPI now stands at +173.

A new Jersey PACE graduate is 014JE00415 **Peter**. **Peter** is a **Paramount** son from a 1<sup>st</sup> crop **Mor** daughter. He sires nice udders (+3.67 JUI) and is a solid production improver.

014BS00288 **Payoff** continues to impress **Brown Swiss** breeders milking his 2<sup>nd</sup> crop daughters. Now with over 200 daughters in his evaluation, **Payoff** increases to +1146 PTAM. At +154 PPR, **Payoff** is a top 10 sire in the breed.

The future is bright as we look towards January as several potential PACE graduates have promising preliminary data. A 5-month layover until the next release date, allows ample time to collect plenty of data. Potentially, there could be several new graduates.



014HO03597 **Potter** daughter: **Blok-Bros Potter 4953**  
Owned by: **Blok's Evergreen Dairy, Lynden, WA**

# When Should You Preg Check?

Decisions as to how and when to check if cows are pregnant are not as easy as they used to be. Rectal palpation for pregnancy has long been the method of choice and is typically performed at 45-60 days of pregnancy (although some can diagnose pregnancy as early as 35 days).

Now, ultrasonic diagnosis is an alternative possibility. The use of ultrasound allows pregnancy checks to be made as early as 28 days after insemination. In addition, one can use ultrasound for a limited time in pregnancy (60-90 days of gestation) to diagnose sex of the calf.

Use of milk progesterone assays can push

pregnancy diagnosis to as early as 21 days after insemination.

There are **advantages and disadvantages** of performing pregnancy diagnosis early in pregnancy. The main reason to do so is to identify nonpregnant cows so that they can get another opportunity to be rebred. One strategy is to start OvSynch (i.e., give an injection of GnRH) 7 days before pregnancy diagnosis. Cows diagnosed non-pregnant then receive an injection of prostaglandin on the day of pregnancy diagnosis, GnRH two days later and insemination.

Since ultrasound has become more common, it has been realized that many

cows pregnant at day 28 of pregnancy subsequently lose their pregnancies (about 15%). Therefore, you cannot consider a pregnancy check at day 28 a definitive determination of the cow's pregnancy status—confirmation of pregnancy at day 45 or so still needs to be done.

Whether it is worthwhile to do an earlier pregnancy check probably depends on the cost of the procedure as well as the fertility of the herd. If conception rates are typically low, it may be cost-effective to perform pregnancy checks at day 28 so that open cows get another chance to conceive as soon as possible. Ultimately **WHEN** you check your cows for pregnancy is your choice.

## Beef Sire Highlights

The release of the Fall 2007 Sire data have once again shown that Accelerated Genetics is the source for breed leading beef sires.

### Angus

Leading the Angus breed are 014AN00223 **New Frontier**, 014AN00228 **24J**, 014AN00231 **Alliance 9126**, 014AN00249 **Genetics by Design**, 014AN00250 **Rito 2V1** and 014AN00272 **Bando 1961**. These breed giants continue to add significant amounts of data to strengthen their status as elite sires.

014AN00257 **Net Present Value**, 014AN00271 **Predominant** and 014AN00275 **Triple J Design** continue to look impressive and will soon join the ranks of AI proven sires.

Young sires such as 014AN00261 **Rito 416**, 014AN00266 **Foundation** and 014AN00270 **Performer** are emerging as rising stars in the industry.

For elite carcass genetics, look to bulls such as 014AN00258 **Keystone**, 014AN00287 **Casino** and 014AN00291 **Grade Up**.

An exciting group of young sires will be entering the lineup this fall, led by 014AN00295 **Navigator**, 014AN00298 **Boom Time** and 014AN00300 **Reflection**.

Overall, 25 Angus sires smashed the +100 pound barrier for Yearling Weight

EPD, ranking in the top 5% of the breed. Compliment this with 33 sires ranking in the Top 25% for Calving Ease and the Angus sires at Accelerated Genetics are truly at the forefront of the breed.

### Red Angus

The Red Angus lineup continues to offer cattlemen a wide variety of proven genetics for their breeding program.

014AR02020 **8000** continues to be one of the breed's elite "Curve Bender" sires, with a wide birth weight to yearling weight spread.

Two sons of Cherokee Canyon, 014AR02025 **Ribeye** and 014AR02027 **Good One** offer balanced performance with superior carcass merit.

014AR02028 **Conquest**, 014AR02032 **Flat Iron** and new sire 014AR02035 **Wellington** bring the best of Beckton breeding with superior individual performance.

### Hereford

Accelerated Genetics offers the breed's most powerful 1-2 punch with 014HP01007 **Prospector** and 014HP01009 **World Class**. No other AI organization can offer two, 11-way Trait Leaders in the Hereford breed.

Excitement has been abundant with the addition of young sires, 014HP01011 **Kudzu** and 014HP01012 **Recruit**. They

offer outcross pedigrees to the Felton lines without sacrificing performance, calving ease and maternal traits.

### Charolais

014CH05009 **Rancher** and 014CH05011 **Easy Pro** continue to be elite proven sires.

Coming this fall are two exciting young sires, 014CH005014 **Top Grade** and 014CH05015 **Institute**.

### Simmental

014SM03028 **Venom** and 014SM03032 **Vision** continue to lead the pack of outstanding sires at Accelerated Genetics. Both sires offer producers exceptional calving ease and performance with superior phenotype.

Two sons of the immortal Red Coat were added this spring. 014SM03040 **Red Caesar** and 014SM03041 **Too Black** excel in performance and maternal traits along with carcass merit.

Newcomer 014SM03042 **Escalade** is at the head the class for carcass traits.

To view the lineup at Accelerated Genetics and to request our Fall 2007 Beef Sire Update go to [www.accelgen.com](http://www.accelgen.com).



**Don Trimmer**  
Beef Genetics Manager



# Spotlight On 2007 Summer Internships

Accelerated Genetics has long been recognized as an industry leader for agricultural youth support. The importance of investing in future customers and industry leaders was recognized early on and it is still very true today. Providing learning opportunities and first-hand industry experience assists in developing confident agricultural leaders and is part of the Accelerated Genetics philosophy and our Summer Internship Program is just one part of that youth support program.

Each summer Accelerated Genetics offers three types of young adult internships, the Public Relations & Advertising Intern, Sales & Service Intern and Marketing Services Intern. Accelerated Genetics internships provide valuable real-life experiences through a variety of opportunities working directly with employees, producers and industry partners. These experiences will help individuals prepare for a future career. This issue of Genetic Trends will focus on just a few of the Summer Interns at Accelerated Genetics this summer and share their comments about these unique opportunities.



**Lana Olson**

Public Relations & Advertising Intern  
University of Minnesota



**Trent Gabler**

Marketing Services Intern  
University of Wisconsin-River Falls



**Kurt Statz**

Sales & Service Intern  
Madison Area Technical College - Reedsburg



**Lindsay Morris**

Marketing Services Intern  
University of Wisconsin-Madison

## 1. What internship position did you hold during 2007 and what stimulated your interest in the position?

**Lana Olson:** This summer I had the opportunity to be the Public Relations and Advertising intern for Accelerated Genetics. I became interested in this position after growing up on a dairy farm and being very familiar with the A.I. industry. After taking a part time job during college as a Communications Intern I realized how much I enjoyed helping create new and attractive ways to communicate with people. So that is where my interests all started!

**Trent Gabler:** I worked as a Marketing Services Intern this summer. I grew up on a dairy farm and have always been interested in cattle genetics.

**Kurt Statz:** I served as the Sales & Service Intern in Region 14 for the summer. I have been involved in the cattle industry for many years, and I thought this might be another aspect I would like to learn more about.

**Lindsay Morris:** I was one of the two Marketing Services Interns and I was interested in this position because I have a deep passion for cows and just getting out and meeting producers. I also just wanted to get my feet wet in an A.I. company in any way that I could.

## 2. How did you find out about the internship?

**Olson:** I found out about the internship a couple ways. First, I received a brochure at the Accelerated Genetics Dairy Judging contest last fall where I was competing. I also received more information and visited with the internship coordinator at the career fair at the University of Minnesota, where I will be a senior this fall.

**Gabler:** I gave my resume at the annual career fair at the University of Wisconsin-River Falls, and then was asked if I was interested in the position. I then looked at the website for further information.

**Statz:** I learned of the position from my Area Director of Marketing, Dave Calvert. Dave said I should look into the internship program because there were many opportunities to learn about all aspects of Accelerated Genetics as an intern. I actually started earlier this year as a relief A.I. Technician for Accelerated Genetics.

**Morris:** My sister actually told me about the internship because when she was applying for internships she found this one and suggested it would probably be a good and fun learning experience for me. Also, the Badger Dairy Club through UW-Madison sent out emails about it as far as when resumes were due and who to send them to.

## 3. What did your daily duties include?

**Olson:** The absolute best part about my job was that I did not do the same thing every day. I have found it very interesting to work in all of the areas of the Advertising, Communications, Public Relations division. During the summer I wrote press releases, worked on promotional materials, created a customer electronic newsletter, organized sending Accelerated Genetics representatives to county fairs across the state to take pictures, rode along with sales representatives and technicians to get customer testimonials and the list goes on! All of the company interns have the experience to see all facets of the company during the training week in May and throughout the summer. I have really appreciated that Accelerated Genetics has a really organized and structured internship program with many different projects so my summer has been very exciting.

**Gabler:** My summer has involved researching, locating, and analyzing young sire daughters that may potentially be pictured and used for marketing and promotional materials, as well as for tours. I also assisted with some of the international tours that the company hosted throughout the summer.

**Statz:** The summer consisted mostly of providing relief services for A.I. Technicians in Region 14 which is located

in South Central Wisconsin. But I also had to the opportunity to learn and see all aspects of the company this summer.

**Morris:** Throughout the summer I researched cows for lactation history and freshening dates, classification scores, etc. In addition, I planned and called on producers to view their young sire daughters, assisted with the planning and facilitating of foreign and domestic tour groups, found correct directions to farms (very important!), clipped young sire daughters, wrote thank you letters, and any other general work that Beth Munsell, Marketing Services Director, needed help with.

#### 4. What prepared you for the internship?

**Olson:** Working in the Communications department of my college at the University of Minnesota by far was the best preparation for this internship. Working for a University and a cooperative are very similar because everything is done on a budget that your owner-members must approve of. In the case of my job at the U of M, our owner-members were essentially the entire population of the university. In that position, I had a lot of writing and web experience that have been very valuable so far. More specifically, learning to use programs in the Adobe Creative Suite was very helpful before joining Accelerated Genetics. Besides my job preparation, having a background in the livestock industry and understanding dairy and beef cattle genetics were essential.

**Gabler:** Things that prepared me for this position include judging competitions, showing and fitting of cattle, as well as communication skills developed through classes, and personal experiences.

**Statz:** My overall farm experience helped me with the internship. In addition, the A.I. training through Accelerated Genetics and the new employee orientation were also very beneficial.

**Morris:** I grew up on a Holstein farm and have been around cows and working with cows all my life. Also, I have been on a judging team ever since I can remember so I have really gained some great skills evaluating cows through the coaches that I had or are currently working with. All these experiences helped me feel prepared.

#### 5. What did you enjoy most about your internship?

**Olson:** My favorite part so far has been the challenge of being creative with some of the flyers, brochures and booklets I have worked on. It's not as easy as I thought! I grew up always being very interested in art, so combining my love for cows and art within my projects have been very fun. Looking at the job in general, everyone in the company has been very helpful and friendly throughout the summer so that has been a favorite part as well.

**Gabler:** I enjoyed the flexibility, and non repetitive schedules, the ability of travel, seeing a lot of cows, visiting with producers and industry leaders, as well as learning about every aspect of the company.

**Statz:** I learned a lot about the entire A.I. industry, and I had the opportunity to meet all different kinds of new people as well as see many different farming operations. I have also traveled a great deal all over southern Wisconsin.

**Morris:** Well there wasn't anything about this internship that I didn't like, but the things that stick out most to me are traveling to different places where I normally wouldn't go to see cows, being able to get out and talk with so many great producers and hear their passion for their cows and agriculture in general, learning so much about a company in what seemed like so little time, and also being able to work under a great boss who is so understanding and so willing to help us learn and so funny and nice and also being able to work for a great company.

#### 6. What have you gained from the internship?

**Olson:** The most beneficial part of this internship was simply the time and experience I have gained. I can only learn so much in a classroom but working on an actual brochure that will be used and working on an actual newsletter from start to finish will help me in my future career.

**Gabler:** This internship has given me a renewed confidence in my cattle selection and judging skills, along with a strong understanding of what makes the company work. I feel that I have also improved my personal communication skills when dealing with people one on one, and given me confidence when calling someone new.

**Statz:** Knowledge of the A.I. industry and people skills are the two that stick out most for me. Also how to read maps really efficiently!

**Morris:** I have gained better communication skills not only between myself and producers, but also between others within the company and I have learned great teamwork so that we could have a successful summer. I also have much more knowledge as far as everything that goes into an A.I. company.

#### 7. Do you have advice for those who may be considering this internship?

**Olson:** To someone who may be interested in this internship, I would say they should try to get as much writing and advertising experience as possible. Don't be afraid to take on tasks in your everyday jobs and activities that would help you gain more experience. If you work on your family's farm: help create an ad or help plan an event on the farm. If you don't work on a farm: get involved with a club or breed organization and become the newsletter chair. Whatever it may be, it is important for you to gain experience in representing something and portraying a consistent, clear, positive and exciting message to the public!

**Gabler:** This internship is the opportunity of a life time. The people, sires and products at Accelerated Genetics make it a great place to work and gain valuable experience and knowledge as to how the industry thrives.

**Statz:** If you are good with people and animals, apply for the internship, you won't regret it and you will learn a lot.

**Morris:** I highly recommend this internship and don't be afraid to send your resume in and have an interview with the company. Interviews really aren't as scary as some people make them out to be. This is a great company to work for; they treat you wonderfully and I believe you will have the time of your life just like I did!

**How To Apply For Internships**  
Applications consisting of a cover letter and resume for the Accelerated Genetics summer internships are accepted between August 1<sup>st</sup> and November 15<sup>th</sup> of each year. Complete internship position descriptions can be viewed on Accelerated Genetics website at [www.accelgen.com](http://www.accelgen.com).

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