

Summer Update

Rick Vaughan, CEO

Greetings IAS members and customers. I hope your summer is going well. I know the grain markets thus far have been underwhelming. We still have time for improved markets with half of the growing season left. The markets will have absorbed the June 30th USDA report by the time you read this Ag Biz Publication. Ron's article will include details from the USDA report.

The end of our fiscal year is approaching and we are starting to think about the upcoming board elections. There will be 3 board elections this fall. At this time, all incumbents have preliminarily indicated their desire to run for re-election. The incumbents are President Randy Blake from Andrew, Vice Chairman Paul Cook from the Hubbard area and Stan Norman from the Union area. The nominating committee members this year are Secretary Loren Manternach from Cascade, Executive Council Member Steve Perry from New Providence and Joe Thraenert from Elma. IAS welcomes and encourages members to consider running for the board. We will need to complete the slate of candidates by late October. There is plenty of time, but we would like to get conversations started with interested parties. The nominating committee will consider members who live in the general geography of the incumbent board members running for re-election. If you have interest and/or have questions, you are welcome to call President Randy Blake, any of the IAS board members or myself. Your local IAS location managers can also assist you with the process.

The IAS board of directors predicts there will be upcoming board member retirements over the next several years and therefore have decided to add three associate board members to the IAS nine person board of directors. We will be recruiting three associate board members to serve a combination

of one and two year terms. We will be recruiting an associate board member to represent the Waukon/Monona/ Elkader area, the Independence/ Winthrop/Manchester area and the Faulkner/Ackley / Austinville area. The House. Please join me in recognizing board's preferences are candidates who desire to serve on the board longer term, are actively engaged in a family farming operation, are early in their farming careers, technologically proficient, financially astute and have a strong desire to help IAS evaluate, reconcile and meld the changing dynamics of agriculture into a future highly successful cooperative. Please contact your local location manager, one of the nominating committee members. Randy Blake or myself if you have interest in one of these associate positions or know someone who would be interested. The nominating committee will be vetting these associate positions along with the board member candidates. Contact information is available elsewhere in this publication.

I would like to recognize and thank Ron Barkema, IAS VP of Grain. Ron will be retiring this summer after 39 vears of service to IAS and its former member companies of Prairie Land Cooperative and the Farmers' Cooperative of Hubbard/Garden City. Ron started his cooperative career in Hubbard working in the feed mill. He spent narrowing the gap of where we would 6 years at Hubbard in operations, next worked in Garden City as Location Manager for 12 years, then 15 years as Grain Department Manager for Prairie Land Cooperative and the last 6 years as our IAS VP of Grain. Ron has a tremendous wealth of institutional knowledge about our organization that will be sorely missed when he retires. I would like to take this opportunity to say "thank you" to Ron for his many years of leadership and service to the members and employees of IAS and its business landscape. Have a great sumpredecessor companies. Ron's positive influence will be felt for years to

come through the employees he has trained and influenced. We plan to have a retirement reception for Ron on July 28, 2017 from 3pm into the evening at the Hubbard Golf Course Club and thanking Ron for his many years of service to our cooperative and to the whole cooperative system. And to wish him a healthy and joyous retirement!! Ron's replacement, Jim Schendt will be on board in mid-July. You will hear from Jim in the next Ag Biz publication.

We have several large projects under construction this summer. Major grain remodeling at Alden and Hubbard are well underway. We anticipate these projects to be finished in ample time for harvest. Pine Lake Corn Processors has been in an expansion construction mode since last fall. This project is on schedule and is expected to be operating by mid-September. This project will create an additional fourteen million bushels of corn demand in the Pine Lake geography.

Our fiscal year end is fast approaching. We are starting work on next year's budgets, capital spending priorities and equity redemption projections. This fiscal year will produce improved financial results over last year. We are like to be versus actual results, but the agricultural head winds are ever present in this environment.

A special Thanks to all of the IAS employees for their hard work this year. A special Thanks to our customers for all of their support. We will continue to live our purpose statement and look for opportunities to improve our service offerings for our customers and properly align IAS with the changing mer. Thanks for your business. Stay safe

Grain Update

Ron Barkema, VP of Grain

The June 30th stocks and acreage report was just released and it offered some bullish news in the wheat and soybean arena and neutral to negative news in the corn. Here are the corn numbers – June 1st corn stocks came in at 5.22 billion bushels with an average estimate of 5.12. This was almost a 100 million bushel increase. Corn acreage was pegged at 90.89 which ative that has had given me the opwas about 1 million more than the trade estimate. The soybean stocks through the years. came in at 963 million bushels which was 20 million bushels less than the trade guess but still 91 million bushel above a year ago. Soybean acreage numbers were at 89.5 million acres with the average trade guess a little higher at 89.75 million acres. These are the numbers that we now need to trade and it looks like the dominant market mover will fall back to weather. We have 514 million bushels more corn on hand at the end of June than we had 1 year ago. With the carry in the board and current cash price levels it appears that many are waiting to see how pollination goes before making additional sales.

This will be my last Ag Biz article as I will be retiring at the end of July. I started with Farmer's Cooperative Hubbard/Garden City in 1978 working operations in all areas of the business. I transferred over to the Garden City location in

1984 taking the location manager position. I then transferred back to Hubbard in 1996 and started trading the grain position for what was then Prairie Land Cooperative. My title moved to VP of Grain at the merger with Innovative Ag Services. It is hard to believe that it has been nearly 40 years! I have been blessed to work for a cooperportunity to advance my career

The Ag business model has changed throughout the years no different than your farming operation has changed. When I started, we were applying 4 quarts of chemicals per acre, now we are adding ounces. We were loading 25 car unit trains and now 110 cars in 15 hours, we also had barge box wagons of grain in line and now mostly semi's. 130 bpa on corn was considered good and now it's disappointing if we don't get 200 bpa. When I first started, a 35 ton day of feed was considered aver-

age out of the mill in Hubbard and now, we recently had a 750 ton day. I have had the pleasure of working for and with many good employees and customers throughout my career and have many great memories, (and stories!!!) to go along with those relationships.

I encourage you as customers to continue to give the nod to IAS when doing business. IAS's ability to hit markets outside of Iowa including the export markets is very important to your farming operation as it always keeps the interior processing plants in check. Yields continue to grow and supporting a company that has this diverse marketing leverage will be key, as carryout numbers grow!

Thank you for your business over all these years and putting your trust in me and the IAS grain department to handle your marketing needs. It has been a heck of a run and I wish you and your farming operation the best.



Agronomy Update

Tim Krausman, VP of Agronomy

The crops in our territory are looking excellent. Currently we have ample moisture with heat units progressing nicely. Some weed challenges continue to plague us, but for the most part the weed control has been acceptable. Where the best control continues is where we have stayed ahead of the weeds with early applications and residuals with every pass. The same story continues when we allow weeds to get any size at all to them. Control is suspect at best.

Some hail has been present throughout the territory which may require some additional management. Fungicide can typically help control diseases that can occur due to lesions from the hail. Some other things to think about is hybrid sensitivity for maximization of fungicide applications.

Currently, it appears that some of the nitrogens at least, will be a lesser cost per ton than what we saw last fall. Even with the low price of corn, some fertilizers continue to be "a good buy" compared to history. Fertilization will continue to be an important part to maximizing profit per acre.

As we continue through the growing season please continue to communicate with your local IAS Agronomy Sales Advisor to identify challenges in the field to minimize the impact this current growing season, and also to prepare for adjustment to your next crop. As we continue to mitigate stresses I try to keep in mind that the majority of us in this business only get 40 attempts/growing seasons at perfecting our craft.

Thank you for your business and please have a safe and eventful summer.

Monitoring Wind Speed with Herbicide Application

Mason Smith, Agronomy Sales Advisor

Throughout the growing season anyone who has experienced spraying herbicide or relies on a custom applicator knows the difficulties of finding suitable days to spray herbicides. With most pesticide labels the maximum wind speed cannot exceed 10 to 15 MPH. If you have sprayed anywhere in our geography you know that there are few days in a week that we achieve the correct wind speeds to match the label. It is very important to follow all information on the pesticide label, spraying over the maximum wind speed is not only illegal, but highly increases the likelihood of off target movement of the pesticide.

The graphs on the following page will show a 30- year period of three locations in Iowa, which demonstrate wind speeds throughout the day starting at midnight and going through 8:00 P.M. As you can see wind generally increases from 7:00 A.M. till 4:00 P.M. for most applicators that is the peak time of spraying. The graphs also show that wind speeds are higher throughout early spring.

Esterville, IA) 16 2 Average Wind Speed (miles per 14 Fighting wind while applying herbicide is an issue every spring and summer, it has been and will become increasingly more magnified as new formulations of herbicides come to the market. It will be critical to follow the label as closely as possible on new Ames, IA dicamba and 2,4-D herbicides. These products will be essential tools mov-Average Wind Speed [miles per 12 ing forward in combating resistant 10 weed species, but must be used responsibly. Contact your Local IAS Agronomist if you have any questions regarding label information. Iowa City, IA werage Wind Speed (miles per 10 May 1 - 7 June 19 - 25 May 22 - 28 July 3 - 9 June 5-11 Figure 1. Average wind speeds (1987-2016) as affected by time of day and date at three lowa locations. Wind speed measured at a 30 foot height.

A New Class of Fungicides

Ben Low, Agronomy Sales Advisor

I think I can go on record stating that fungicides are one of the most underutilized tools on Iowa farms today. The topic comes up every year about this time with all sorts of anecdotal evidence for and against but it has become clear that when used appropriately, fungicides can provide massive agronomic and economic benefits. However, many are not aware of the quickly changing portfolio of products on the market.

Strobilurins:

I remember back to Headline being the name in fungicides. With the same mode of action as Quadris, Stratego, Aproach, and many others, Strobilurin fungicides provided excellent control when used properly by inhibiting mitochondrial respiration within the fungus, eliminating energy production, and leading to death. Though effective, this mode alone had some drawbacks,

perhaps most notably the chance of developing resistance, so we added in Triazoles such as Tilt, Proline, and Domark.

Triazoles:

Triazoles control fungi by altering structural growth within the fungus leading to death. In some cases, structural destruction even inhibits sporulation (a fungal reproductive process). These new and vastly improved combination fungicides included most famously Quilt Xcel, Headline AMP, and Stratego YLD. The market took to these new combo products in swarms.

Enter SDHI:

To my knowledge, two fungicides are now on the market that included Succinate dehydrogenase inhibitors (SDHIs): Priaxor and Trivapro. Although they are very new to the market, my understanding is that these SDHI's will function similarly to Stro-

bilurlins, stopping energy production, leading to death. Priaxor adds BASF's SDHI, Xenium, to Headline. Whereas Trivapro adds Syngenta's SDHI, Solatenol, to a Strobiluron/Triazole combo, making a three way mix.

Although some of these products are now being used in-furrow or early-season, it seems that tassel (during reproductive stages) applications still produce the greatest ROI. That being said, the exact time to spray is specific to the target species.

These new products have proved their worth and deserve consideration on your operation. With fungicides at a better value than ever, extremely high yield potentials, and weather conditions perfect for spreading and replicating fungal pressures, talk to your IAS agronomist to determine which integrated pest management strategies are best for your operation.



What's new in the Feed Division?

Mike Duncomb, VP of Feed

Feed Mills – Currently we are working to update and expand corn grinding capacity at the Hubbard feed facility. We will be moving from a double stacked roller mill to a triple stacked machine along with moving the roller mill from Lawn Hill to Hubbard. This will add corn grinding consistency and capacity to our Hubbard Feed Mill.

VFD's – We are 6 months into the updated veterinarian feed directive with our VFD processes working pretty smoothly with a little fine tuning to improve the processes. We do expect a high volume of VFD's to expire over the next few weeks.

Many of the VFD's written in January had a 6 month expiration date and will need to be re-

written by your veterinarian. Please review your VFD needs with your veterinarian and communicate with your feed sales person and your feed mill.

FSMA – The IAS Feed Manufacturing and Distributions Teams have been busy working on FSMA compliance. The Food Safety and Modernization Act have some significant dates coming in the near future. Innovative Ag Service will have their Food Safety Plan updated and in place and will be compliant with all "Current Good Manufacturing Practices" by September of this year. Hazard Analysis and Preventative Controls compliance will be in place by September of 2018

Sales Planning and Budgeting – your IAS sales team has begun

the 2018 planning process to update our business plans and budgets for the 2018 Fiscal Year. Each year brings opportunities and challenges and our next fiscal year will be no different. The livestock marketing environment continues to be stressed in all species areas.

We all will be working diligently to manage through a low profit environment with declining livestock numbers with our customer base. As always, we look forward to any input from our customers to keep working down a path of continuous improvement.



Summer Management Strategies in Swine Finishing Barns

Brad Dewell, Swine Business Manager

With a couple of heat waves already this summer and the one that lasted 7 days of 90 degrees heat in middle of June it is a good time to review some strategies to keep pig comfortable and gaining weight.

provide good pig evaporation.

Curtain sided barns should have the sprinklers coming on at 18 degrees above set point. Tunnel barns can be set at 20 degrees over set point (82 degrees). Attempt to

The effect of heat stress on swine in the summer is well documented. once we get past 77 degrees in our barns daily feed intake declines with a corresponding decline in average daily gain and a worsening in feed conversion. The modern high lean pig actually produces more heat than his counterparts did 20 years ago. Genetic improvements have increased feed consumption and gain and the by product is more heat being dissipated by the modern hog. Unlike we humans, the pig does not sweat and his main method of ridding heat is by evaporation (latent heat) to his cooler surroundings of air and concrete. If you observe pigs in heat stress they lie out and attempt to put as much of their body in contact with the floor. Evaporation is a key element to managing heat stress in pigs.

Barn controllers should be reset for pigs finished in the summer. Set points should be down to at least 62 degrees by the time the group weighs 100 pounds. Tighten the stage differentials so the barn can react more quickly to rising outside temperatures. Use large bore sprinklers when temperatures exceed 80 degrees. Do not use misters, they will only raise the humidity in the barn and will not

provide good pig evaporation. the sprinklers coming on at 18 degrees above set point. Tunnel barns can be set at 20 degrees over set point (82 degrees). Attempt to get at least 60% of the pen covered by the sprinklers. Watch sprinkler placement near feeders on curtain barns as high winds can cause problems with water being blown into feeders. Set the sprinklers to be on for 2-4 minutes and the off time should be between 10 and 20 minutes. Every soaker/sprinkler system is different on how effectively they get the pigs wet in pens for the evaporation process. It is the actual drying of the pigs that allows for the evaporative cooling effect. The exact time off can be determined by observing the time required for the slats to dry. This may vary with outside humidity; higher humidity will take longer to dry. However as outside temperatures increase normally humidity declines and allows for better evaporative cooling.

Review diets for possible summer changes. Added fat has a higher value in the summer than in thermo neutral weather. Lysine levels may need to be adjusted with increasing fat levels to maintain a correct lysine to energy balance. Evaluate fiber it can increase heat production by the pig. Review your feed budgets; sometimes a simple change in the budgeting of diets is easier than a wholesale change in the diets themselves. Evaluate your Paylean strategy. Like fat it has more value in hot

weather. Manage the feed systems on the farms. Feed outs are more common in pigs fed in the summer as bridging of bins and feeders are more common. Manage your feeders and ensure at least 50 percent pan coverage is available in each feeder. Restrictions in intake are more costly in the summer. Do a good walkthrough late in the day to make sure all pigs have access to feed. Pigs will eat much of their feed at night in hot weather so having feed available at night is critical

Do not overcrowd pigs finished in the summer. Make sure they have at least 7 square ft. per pig in the summer. Consider moving your 1st sale in the barn up one week in the summer. The maximum heat production in a barn will be the day prior to the first sale. Relieving the barn will allow more space and reduce the heat stress on the remaining animals. Load market trucks early if possible. Take more time and move fewer pigs per trip from the pens. Consider your stocking densities on the trucks. Many people reduce loads by 10 pigs per load in the summer. If it is hot at loading time make sure pigs are wet down before loading to help with stress of pig and pigs are wet down on truck before leaves farm.

Feeding & Management of Dry Cows for Modern Day Dairies

Dick Argall, Livestock Production Specialist

Facilities and forage selection for dry cows are two of the most important features in dry cow management.

Facilities:

Having good dry cow facilities are necessary for all of the following:

- Having enough room for cow comfort through dry cow period
- Easier to detect dry cow problems
- Easy access to feeds stuff
- Less problems with birthing process
- Having a pasture by dry cow facilities is good feature for the animals

Potential Dry Cow Forage Options:

- Small grain straw (wheat straw appears to be an excellent forage for dry cow diets) Very low energy density, low potassium and calcium, may help reduce moisture in TMR's
- Corn Silage

Low Protein

Low potassium and calcium

Highly palatable

Adds moisture to the TMR

Corn Stalks

Low starch and sugar content

High fiber

Excellent bulk

Low cost

Grassy Hay

Readily available in the Midwest

Moderate protein and energy content

High fill factor and palatable

Rations for Dry Cows:

- Proper protein and mineral and vitamin balance in your ration is essential
- Low energy ration—do not try to put condition on cows during dry period
- There has been indication of amino acid use such as methione in transition rations

In summary, good facilities and good forage selection for dry cows can help eliminate many problems at the time of calving and during the transition period. The dry cow stage is a time of rest for the cow and cow comfort is necessary to achieve the best results. Good facilities are as important as proper feeding management during the dry cow period.

Health of New Cattle

Dan Schmitt, Beef Production Specialist

Managing newly received cattle can be a challenge. When receiving cattle from a long distance, cattle should be allowed one hour of rest for every hour traveled.

Keep cattle bedded up with cornstalks or straw, making sure pens are clean from old manure and old bedding packs. Water down dusty pens. Provide shade when conditions are hot and humid. We want to keep our cattle comfortable and cool.

Provide fresh, clean water without algae and other debris floating in it. This is very important to keep cattle eating and maximizing dmi. The water should be clean enough that you would drink out of it. Using stock tanks may be a better choice than automatic waterers for fresher water, and a way to medicate a group of calves the first couple weeks if need be.

Allow the proper bunk space for self-feeders and feed bunks. Feed gates on self-feeders needs to be managed to keep adequate feed in the trough, not too wide that the cattle are wasting the feed. One to two finger widths is usually a good starting point. Feed bunk space for feed bunks should be at 18 to 26 inches for once a day feeding and 9 to 15 inches for twice a day feeding, this range will depend on if you are feeding calves or yearlings. We need to make sure feed is consumed readily. Watching the feed so it doesn't heat up or separate is vital for overall performance. Locate feeders, bunks and and profit waterers on the outside of the pen, where calves tend to "walk the fence" this will help the calves find them, the ideal place for this would be to place them perpendicular to the fence so that calves must run into them as they circle the pen. and even

Cattle should have ample space—depending on building type, design and experience. Pens that are too large or small will affect intake and gain.

A good health program should be talked about prior to the cattle arriving with your local vet and your feed consultant. Look at last years' experience for some direction, putting together a protocol to help prevent an outbreak the best you can. Remember "an ounce of prevention is worth more than a pound of cure", this is so true when starting cattle, especially when we are talking vaccination and nutrition.

Sale barn calves normally break with disease at 1-14 days, post-arrival. They will also break at 1-14 days when calves are "put together" or if calves are already stressed, exposed and incubated. Ranch-fresh calves typically break 7-14 days post-arrival.

These calves require time for new pathogens to incubate; using early mass medication has little benefit.

Ranch to rail data from Texas A& M shows us the impact of health

and profitability. A healthy calf that is consuming feed readily is worth \$151 more than a previously sick calf

Observation during the first 3-4 weeks is vital! Keeping a close eye on the pen, checking for illness and even taking rectal temps will go a long way in preventing an outbreak! Monitor sick calves, keep records, providing a sick pen helps to control the outbreak.

Nutrition plays a vital role in accomplishing a good starting program. We need to stimulate intake, our goal is 2.5% to 3% of body weight in 7-10 days. We need a proper diet to provide essential nutrients in the diet to maintain and improve rumen function. This in turn affects microbial protein production, and rumen fermentation. A good nutrition program helps with disease resistance; it helps with a better vaccine and antibiotic response. A good nutrition program enhances performance, which means better gains and feed efficiency and more profitable cattle.

The feed that you are starting cattle with needs to be palatable, have the correct ingredients, the correct roughage level, appropriate feed additives, as well as the physical form is important so the calves will eat it. A calf never gets over a good start or a bad start!

IAS & Land O' Lakes/Purina offer products and programs that work

and give you "the producer" top value for your feed dollar. Our unique and innovative products and programs have been research tested and are time proven!! Some of the products available are:

Stress Care 5— a 5lb fed product for 14 to 21 days to be fed with hay and/or tmr.

Pre Con Complete—complete feed for 7 to 14 days fed in bunks with hay being optional.

Accuration Starter –a complete feed to be used in self –feeders with hay as an option.

Purina Stress Tubs--lick tubs to be used in starting pens for 3-4 weeks. "more eaten means less treating"

Cowboy logic- "The sooner you fall behind, the more time you will have to catch-up" Have a great summer!

Upcoming Board Elections and New Associate Director Program Provide Handler CEO

Brenda Hoefler, CFO

Innovative Ag Services will have three board elections this fall and all incumbents have elected to run for re-election. The three incumbent board members up for election are: Randy Blake of the Andrew area, Paul Cook of the Hubbard area, and Stan Norman of the Union area.

In addition, we expect some future director retirements over the next several years and therefore have decided to add three associate board members that would be appointed to the board for one or two year terms. These positions would attend the IAS board meetings and fully participate in the discussion, they would just abstain from voting. The purpose of this program is to help develop potential future directors as well as provide additional insight and direction from our membership.

If you have interest in becoming a director or an associate director, please call President Randy Blake at (563) 542-7366, nominating committee members Loren Manternach (563) 590-2907), Steve Perry (641) 751-1553, Joe Thraenert (563) 419-6613, Rick Vaughan at (319) 465-6896 or speak with your local location managers.

Please see additional details in Rick's update.







Iowa Locations

Ackley Hopkinton

Alden Hubbard

Alta Vista Independence

Andrew Lawn Hill

Austinville Manchester

Cascade Monona

Center Junction Monticello

Central City Oran

Cleves Owasa

Elkader Packard

Ellsworth Union

Elma Waukon

Farley Williams

Faulkner Winthrop

Garden City

Wisconsin Locations

Cuba City

Hazel Green

Platteville

Store Hours

Monday thru Friday 7:30am to 4:30 pm

Saturday

All locations hours are varied with the season check with your local IAS location to confirm



Submit Your Picture for the 2018 IAS Calendar Photo Contest before It's Too Late!

Do you want your photo showcased in our 2018 IAS calendar? Then send in your photos that evokes the heart of the cooperative lifestyle by **August 31, 2017!** Whether it is a quiet scenic view, the pride of your farm and community, or a breathtaking sight that defines our cooperative world, we want to see your photos. Winning entries will be featured in the 2018 Calendar.

Photo Contest Details:

Photos must be submitted by August 31, 2017.

- The Photo that is selected for the 2017 Calendar front cover will receive a \$100 gift card.
- Cooperative members, customers, directors, employees and their family members are eligible.
- Photos may be of any appropriate subject or scene, but must be taken within the IAS territory. The member must have rights to the photo.
- A complete entry form must accompany each photo.*
- A photo release form must accompany any photos that include people. *
- It is recommended that digital photos are submitted and that the file is at least 300 dpi and 12" X 9" or larger.
- For complete photo contest rules and eligibility please visit www.ias.coop and click on the photo Contest News Article.

^{*} All forms can be found online under the Photo Contest News Article.