

PUBLIC AFFAIRS REPORT
for
KFPX-TV
DES MOINES, IA
for
FOURTH QUARTER ENDING:
DECEMBER 31, 2016

In accordance with Section 73.3526(e)(11)(i) of the Federal Communications Commission's rules, the following, in the opinion of KFPX-TV, are the problems and needs of the community for the period noted above. They are not necessarily listed in order of importance. Each is identified by significant public affairs and/or public service programming in response to these needs.

Issues:

1. Agriculture
2. Economics, Finance Offers, Prepay
3. Organic, healthy, local and culturally diverse cooking
4. Managing Residue, Building Organic Matter, Soil Compaction
5. Weed Control
6. Applications for Base Saturation, Harvest Loss, Soil Testing, Residual Herbicides, Fall Nitrogen Fertilizer, Soybeans Diseases
7. Nutrients & Micronutrients
8. RoundUp Ready 2 Xtend Soybeans
9. Water Quality
10. Winterizing Equipment

A detailed summary of each program's content, including guests, affiliations and date of broadcast is included in this report.

"Living Well" is a one hour community affairs program that airs every Tuesday at 5:00am.

"Living Well" is dedicated to active lifestyles, wellness & helpful information that leads to a more empowered life. The featured shows in "Living Well" are "Fresh With Anna Olson" and "Loving Spoonfuls."

"Ag PhD" is a one-half hour community affairs program that airs two shows, back to back, every Thursday morning at 5:00am. "Ag PhD covers current agricultural topics in the State of Iowa and the Midwest.

KFPX-TV DES MOINES, IOWA
PUBLIC AFFAIRS REPORT
FOURTH QUARTER, 2016

Program: Living Well Episode #406
Air Date: Tuesday, October 4, 2016 5:00am
Topic/Title: Fresh With Anna Olson and Loving Spoonfuls
Duration: 58:30 minutes
Style/Type: Human Interest
Source: ION Life
Issue(s) Addressed: Organic, healthy, local and culturally diverse cooking
Host(s): Anna Olson and David Gale
Guests: Ernie Grimo and Linda Grimo of Grimo's Nut Nursery, Nina Witkowski

This inspirational series takes viewers inside Anna's world – a chef who truly lives food around the clock. Learn how you too can become inspired by fresh foods in your area, and watch as her enthusiasm motivates you to try new culinary creations of your own.

Cooking for a crowd can be a fun and gratifying task, it just takes a little planning, choosing your menu, and organizing tasks ahead of time. In this episode Anna makes food to fuel competing rowers that are in town. Anna makes granola bars packed with seeds and nuts, tofu skewers with walnut pesto and potato vegetable samosas with mango chutney. She also visits Grimo's Nut Nursery where we learn about different types of walnuts.

This delightful cooking series is devoted to characters, cultures and food. Each week, host David Gale visits a different grandmother to cook, laugh and learn about her life.

In this episode David visits the home of Nina Withkowski, who is a Polish Grandmother. Together they make Ushka, Sernik and borscht from fresh beets in Nina's garden.

Program: Ag PhD Episode #963
Air Date: Thursday, October 6, 2016 5:00am
Topic/Title: Managing Residue, Building Organic Matter, Soil Compaction
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

Crop residue needs to be spread evenly or crop emergence varies. Start with black, clean field and proper seed depth there is no issue with crop emergence. Soil warm up also depends on amount of crop residue. No residue and soil warms up faster.

Building organic matter is important to overall health of soil. There are five steps toward increasing organic matter. One is reducing tillage. Second is to plant crops with lots of roots. Corn has five times the roots of soybeans. Third is use more manure or compost. Fourth is planting cover crops. Fifth is use of biological products. For each one percent of organic matter the soil's water holding capacity increases four percent. Plus, organic matter can hold negatively charged nutrients.

Soil compaction reduction produces better root system growth and more yield. Dig a post hole as far as arm's length. Then take a three to four inch blade knife and slice from the bottom of hole to top. When resistance is hit, there is compaction. Another way is to dig a root pit and see what is going on. Also, adding calcium to soil and tillage with a ripper that has narrow points and straight shank works well too. Tillage should take out top and bottom compaction layer. In addition, organic matter, cover crops and frost can help reduce compaction.

Weed of the Week is Bristly Foxtail. For pre-emerge in corn, use Harness, Surpass, Outlook and Dual. For soybeans, use Treflan, Sonalan or Prowl. For wheat, use Pre-Pare and other grass killers. For post-emerge, use Roundup and Liberty or in corn and soybean Selectmax works and Axial in wheat.

Program: Ag PhD Episode #964
Air Date: Thursday, October 6, 2016 5:30am
Topic/Title: Harvest Loss, Base Saturation
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

In Fall, the big picture is on getting the harvest in. However, harvest loss should be monitored. It is important to look at the field before and after harvest. Also, look at the combine during the harvest. It may be important to change how combine is being used to produce more yield. Finally, harvest loss means that volunteer grain needs to be controlled.

Base Saturation test of potassium, sodium, hydrogen, calcium and magnesium. When doing a soil test a base saturation test needs to be requested. It is the ratio of positive charged nutrients binding to soil. The soil is negatively charged. Sodium needs to be less than one percent. Hydrogen with high levels of seven or above indicate acidic soil. Hydrogen needs to be less than 10%. Midwest crops tests show one percent for potassium which has crop open to disease and leads to yield loss. Potassium needs to be 4-8%. Over 8% causes problems with other nutrients.

Weed of the Week is Lady's Thumb Smartweed. There are three types of smartweed. One is Swamp Smartweed which has hairy leaves. Pennsylvania Smartweed has smooth leaves. Lady's Thumb is different from Pennsylvania because it has a purple blotch that looks like a thumbprint on the smooth leaves. For corn, Verdict, Tripleflexx, and Status will kill it. For soybean the 3-Pre approach is good and RoundUp or Liberty post-emerge. For Wheat it is pre-emerge Sharpen and post-emerge Huskie.

Program: Living Well Episode #407
Air Date: Tuesday, October 11, 2016 5:00am
Topic/Title: Fresh With Anna Olson and Loving Spoonfuls
Duration: 58:30 minutes
Style/Type: Human Interest
Source: ION Life
Issue(s) Addressed: Organic, healthy, local and culturally diverse cooking
Host(s): Anna Olson and David Gale
Guests: Michael Olson, Charlie Parker, Anja Karpinnen

This inspirational series takes viewers inside Anna's world – a chef who truly lives food around the clock. Learn how you too can become inspired by fresh foods in your area, and watch as her enthusiasm motivates you to try new culinary creations of your own.

The local jazz and blues fest is in full swing, and Anna has planned the perfect picnic with Michael and their friends Bob and Jean. Stop by the local honey apiary Charlie-Bee with Anna and get a tour from Charlie himself. Anna uses the fresh honey in her Club Sandwich Roll and rounds out the meal with a Wheat Berry Vegetable Salad, and a Jazzy Platz dessert before packing it up for a music infused picnic lunch.

This delightful cooking series is devoted to characters, cultures and food. Each week, host David Gale visits a different grandmother to cook, laugh and learn about her life.

This episode brings the laughs when Finnish grandmother Anja Karpinnen dares David to eat the eye of the salmon and David dares Anja back.

Program: Ag PhD Episode #964
Air Date: Thursday, October 13, 2016 5:00am
Topic/Title: Harvest Loss, Base Saturation
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

In Fall, the big picture is on getting the harvest in. However, harvest loss should be monitored. It is important to look at the field before and after harvest. Also, look at the combine during the harvest. It may be important to change how combine is being used to produce more yield. Finally, harvest loss means that volunteer grain needs to be controlled.

Base Saturation test of potassium, sodium, hydrogen, calcium and magnesium. When doing a soil test a base saturation test needs to be requested. It is the ratio of positive charged nutrients binding to soil. The soil is negatively charged. Sodium needs to be less than one percent. Hydrogen with high levels of seven or above indicate acidic soil. Hydrogen needs to be less than 10%. Midwest crops tests show one percent for potassium which has crop open to disease and leads to yield loss. Potassium needs to be 4-8%. Over 8% causes problems with other nutrients.

Weed of the Week is Lady's Thumb Smartweed. There are three types of smartweed. One is Swamp Smartweed which has hairy leaves. Pennsylvania Smartweed has smooth leaves. Lady's Thumb is different from Pennsylvania because it has a purple blotch that looks like a thumbprint on the smooth leaves. For corn, Verdict, Tripleflexx, and Status will kill it. For soybean the 3-Pre approach is good and RoundUp or Liberty post-emerge. For Wheat it is pre-emerge Sharpen and post-emerge Huskie.

Program: Ag PhD Episode #965
Air Date: Thursday, October 13, 2016 5:30am
Topic/Title: Winter Weed Annual Weed Control in Fall, Base Saturation, Calcium, Magnesium
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

Livestock, large trucks that make wide left turns and wide equipment in general make road safety is very important during harvest season. Farmers should drive in their own lane and not move on to the shoulder. Legally vehicles have to slow down to speed of farm vehicle and then pass.

Base Saturation is calcium and magnesium ratio to potassium, sodium and hydrogen. Calcium loosens soil for water penetration and magnesium tightens it up to hold water. The calcium molecule is big and the magnesium molecule is small. For porosity of soil, add more lime until calcium is above 60% to 85%. Above 85% and it negatively impacts other nutrients. In sandy, low organic soil, magnesium can be low. Apply more magnesium to get it up to 12% to 20%.

Winter Annual Weed Control is best done during harvest time. Stop harvesting for a day or two and spray. The weeds will have longer root system if waiting until Spring. Spray on a nice 70 degree plus day with no wind. Winter will finish off the weeds. Plus, 2-4-D and Dicamba can be used in the Fall and not in Spring.

Weed of the Week is Leafy Spurge. It is a primary noxious perennial weed. Biological control is through beetles. For pasture, non-crop field use Tordon. It kills permanently, but it also kills trees and fish. Use RoundUp in crops.

Program: Living Well Episode #408
Air Date: Tuesday, October 18, 2016 5:00am
Topic/Title: Fresh With Anna Olson and Loving Spoonfuls
Duration: 58:30 minutes
Style/Type: Human Interest
Source: ION Life
Issue(s) Addressed: Organic, healthy, local and culturally diverse cooking
Host(s): Anna Olson and David Gale
Guests: Loza Stavroff

This inspirational series takes viewers inside Anna's world – a chef who truly lives food around the clock. Learn how you too can become inspired by fresh foods in your area, and watch as her enthusiasm motivates you to try new culinary creations of your own.

Michael's nephew Chris and his wife Anna are in town for the weekend and they've been invited over for a lazy and relaxing brunch. Anna gets a head start on the Blueberry Sticky Buns the evening before, and stops by the Muileboom Greenhouse for fresh tomatoes and cucumber for her fabulous Huevos Rancheros (with bacon) first thing in the morning. The meal is rounded out with three fabulous Fruit Antipasti platters.

This delightful cooking series is devoted to characters, cultures and food. Each week, host David Gale visits a different grandmother to cook, laugh and learn about her life.

Loza Stavroff makes two different flaky Banitsas, and teaches David to dance a Horo.

Program: Ag PhD Episode #965
Air Date: Thursday, October 20, 2016 5:00am
Topic/Title: Winter Weed Annual Weed Control in Fall, Base Saturation, Calcium, Magnesium
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

Livestock, large trucks that make wide left turns and wide equipment in general make road safety is very important during harvest season. Farmers should drive in their own lane and not move on to the shoulder. Legally vehicles have to slow down to speed of farm vehicle and then pass.

Base Saturation is calcium and magnesium ratio to potassium, sodium and hydrogen. Calcium loosens soil for water penetration and magnesium tightens it up to hold water. The calcium molecule is big and the magnesium molecule is small. For porosity of soil, add more lime until calcium is above 60% to 85%. Above 85% and it negatively impacts other nutrients. In sandy, low organic soil, magnesium can be low. Apply more magnesium to get it up to 12% to 20%.

Winter Annual Weed Control is best done during harvest time. Stop harvesting for a day or two and spray. The weeds will have longer root system if waiting until Spring. Spray on a nice 70 degree plus day with no wind. Winter will finish off the weeds. Plus, 2-4-D and Dicamba can be used in the Fall and not in Spring.

Weed of the Week is Leafy Spurge. It is a primary noxious perennial weed. Biological control is through beetles. For pasture, non-crop field use Tordon. It kills permanently, but it also kills trees and fish. Use RoundUp in crops.

Program: Ag PhD Episode #966
Air Date: Thursday, October 20, 2016 5:30am
Topic/Title: Soil Tests, Phosphorus, RoundUp Ready 2 Xtend Soybeans
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

Ag PhD Drainage Calculator can calculate what size tile is needed for inputted drainage per day, based on number of acres, pump size and grade.

Soil tests can help determine where costs can and cannot be cut. Fertility is important and phosphorous is key. Olson Test if soil is over 7.0 pH. Bray Test is under 7.0 pH. P1 tells what is available and P2 tells what is available and what is in reserve. Organic matter needs to be considered as well. It should be built up over time and not to deplete the soil.

RoundUp Ready 2 Xtend Soybeans can be sprayed post emerge with Dicamba. Weed height no more than 4-6 inches. Although it gives the option to be sprayed post-emerge, it is strongly urged to spray pre-emerge. Seed genetics are excellent for good yield and disease control. Use Dicamba with big drops to keep from drift. It does not take great cover to get Dicamba to work.

Weed of the Week is Russian Olive. It is a tree that grows near water. Best tree killer is Tordon. However, it kills fish. Russian Olive just has to be cut down and injected with glyphosate or Arsenal.

Program: Living Well Episode #409
Air Date: Tuesday, October 25, 2016 5:00am
Topic/Title: Fresh With Anna Olson and Loving Spoonfuls
Duration: 58:30 minutes
Style/Type: Human Interest
Source: ION Life
Issue(s) Addressed: Organic, healthy, local and culturally diverse cooking
Host(s): Anna Olson and David Gale
Guests: Carry Katherine-musician and Anna's Olson's niece
Don-drummer
Rudolph Hood- Grandmother

This inspirational series takes viewers inside Anna's world – a chef who truly lives food around the clock. Learn how you too can become inspired by fresh foods in your area, and watch as her enthusiasm motivates you to try new culinary creations of your own. In this episode Anna organizes a fundraising concert featuring the music of her niece Carry-Katherine who is a recording artist. Before heading over to the event, Anna prepares finger foods for a family visit while her niece warms up for the performance with her drummer. The menu centers around a rotisserie chicken served with four different sauces and bases along with potato mushroom bruschetta.

This delightful cooking series is devoted to characters, cultures and food. Each week, host David Gale visits a different grandmother to cook, laugh and learn about her life. In this episode David visits the home of Rudolph Hood who is from the Island of Nevis. Rudolph shares stories of the past while preparing Johnny Cakes and codfish with David.

Program: Ag PhD Episode #966
Air Date: Thursday, October 27, 2016 5:00am
Topic/Title: Soil Tests, Phosphorus, RoundUp Ready 2 Xtend Soybeans
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

Ag PhD Drainage Calculator can calculate what size tile is needed for inputted drainage per day, based on number of acres, pump size and grade.

Soil tests can help determine where costs can and cannot be cut. Fertility is important and phosphorous is key. Olson Test if soil is over 7.0 pH. Bray Test is under 7.0 pH. P1 tells what is available and P2 tells what is available and what is in reserve. Organic matter needs to be considered as well. It should be built up over time and not to deplete the soil.

RoundUp Ready 2 Xtend Soybeans can be sprayed post emerge with Dicamba. Weed height no more than 4-6 inches. Although it gives the option to be sprayed post-emerge, it is strongly urged to spray pre-emerge. Seed genetics are excellent for good yield and disease control. Use Dicamba with big drops to keep from drift. It does not take great cover to get Dicamba to work.

Weed of the Week is Russian Olive. It is a tree that grows near water. Best tree killer is Tordon. However, it kills fish. Russian Olive just has to be cut down and injected with glyphosate or Arsenal.

Program: Ag PhD Episode #967
Air Date: Thursday, October 27, 2016 5:30am
Topic/Title: Grain Carts, Ag PhD Soil Test App, Sulfur
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

Running a grain cart is like running a second combine without the expense of the combine. It costs a \$100 an hour to run a combine Plus, it is better than driving truck in field that adds to compaction.

Ag PhD Soil Test App is a handy tool. When doing soil tests, always go back to same spot year after year. Also always pull at same depth—usually six inches. View individual nutrients in field on computer using Ag PhD Soil Test App. Good data will help cut costs and direct good investments in field.

The importance of Sulfur depends on the crop and how much is needed. Elemental Sulfur stays put, but sulfate moves. Rainfall can move sulfate around in soil like it does nitrogen. Soil sampling is important and the timing of the year depends on what sulfur to apply. Ammonium Sulfate is very stable. Elemental Sulfur can lower pH.

Weed of the Week is Field Bindweed. It is a perennial weed. It is also a primary noxious weed which makes it potentially state controlled. This should not be tilled. RoundUp is not highly effective. Dicamba will work for soybeans. For corn, use Distinct or Status. For wheat, use Sharpen and then Huskie. Use Tordon in non-crop pasture.

Program: Living Well Episode #410
Air Date: Tuesday, November 1, 2016 5:00am
Topic/Title: Fresh With Anna Olson and Loving Spoonfuls
Duration: 58:30 minutes
Style/Type: Human Interest
Source: ION Life
Issue(s) Addressed: Organic, healthy, local and culturally diverse cooking
Host(s): Anna Olson and David Gale
Guests: Mike & Tina Papp-Anna's Friends
Zorka Jovancevic -Grandmother

This inspirational series takes viewers inside Anna's world – a chef who truly lives food around the clock. Learn how you too can become inspired by fresh foods in your area, and watch as her enthusiasm motivates you to try new culinary creations of your own. In this episode Anna cooks a summer supper as a thank you to her friends Mike and Tina for giving her leftover vegetables from their garden. Anna incorporates the vegetables into her menu and makes Super Burgers, chili sauce, pickled green tomatoes and tiramisu pudding.

This delightful cooking series is devoted to characters, cultures and food. Each week, host David Gale visits a different grandmother to cook, laugh and learn about her life. In this episode David visits the home of Zorka Jovancevic from Yugoslavia. Zorka shares stories with David, while making cabbage rolls, noodles and poppy seed cake.

Program: Ag PhD Episode #967
Air Date: Thursday, November 4, 2016 5:00am
Topic/Title: Grain Carts, Ag PhD Soil Test App, Sulfur
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

Running a grain cart is like running a second combine without the expense of the combine. It costs a \$100 an hour to run a combine Plus, it is better than driving truck in field that adds to compaction.

Ag PhD Soil Test App is a handy tool. When doing soil tests, always go back to same spot year after year. Also always pull at same depth—usually six inches. View individual nutrients in field on computer using Ag PhD Soil Test App. Good data will help cut costs and direct good investments in field.

The importance of Sulfur depends on the crop and how much is needed. Elemental Sulfur stays put, but sulfate moves. Rainfall can move sulfate around in soil like it does nitrogen. Soil sampling is important and the timing of the year depends on what sulfur to apply. Ammonium Sulfate is very stable. Elemental Sulfur can lower pH.

Weed of the Week is Field Bindweed. It is a perennial weed. It is also a primary noxious weed which makes it potentially state controlled. This should not be tilled. RoundUp is not highly effective. Dicamba will work for soybeans. For corn, use Distinct or Status. For wheat, use Sharpen and then Huskie. Use Tordon in non-crop pasture.

Program: Ag PhD Episode #968
Air Date: Thursday, November 4, 2016 5:30am
Topic/Title: Ag PhD Harvest Loss Calculator, Residual Herbicide Application, Fall Nitrogen Application
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

Ag PhD Harvest Loss App is beneficial for farmers. Make a one foot square with PVC. Drop square in field and count kernels or beans. The calculation is for every two kernels of corn per square foot equals one bushel of yield loss. It is four soybeans per square foot and 16 kernels for wheat to equal one bushel of loss. A correction may be made to improve yield by the direction of the harvest of field so it is important to check field before, during and after harvest.

Fall nutrients application should be done when it is cold. The colder is better. For example, 50 degrees is good, but 32 is best. Anhydrous Ammonia is recommended form of nitrogen to apply. Soil type is also important and to apply to higher ground rather than lower ground.

Residual herbicide application should be given a day or two during harvest. Farmers should apply higher rate than normal and plant early. Put it where there will be no flood. Residual herbicides won't burndown existing weeds, so may need to add 2-4-D. Farmers need to make two passes with herbicide. Rain and snow will work herbicide into soil. However, as always, crop canopy is the best weed killer.

Weed of the Week is Velvetleaf. RoundUp is not that effective. For Corn, Python is very effective. Tripleflexx and Surestart also have Python in them and can be used on pH above 7.0. For Soybeans, use Python, Resource and Cadet. For wheat, use Sharpen followed by Huskie.

Program: Living Well Episode #411
Air Date: Tuesday, November 8, 2016 5:00am
Topic/Title: Fresh With Anna Olson and Loving Spoonfuls
Duration: 58:30 minutes
Style/Type: Human Interest
Source: ION Life
Issue(s) Addressed: Organic, healthy, local and culturally diverse cooking
Host(s): Anna Olson and David Gale
Guests: Hyun-Joo Cho

This inspirational series takes viewers inside Anna's world – a chef who truly lives food around the clock. Learn how you too can become inspired by fresh foods in your area, and watch as her enthusiasm motivates you to try new culinary creations of your own. Anna has been asked to judge a pie baking contest for the town's local food festival, and this episode of Fresh is all about pie inspired recipes! Anna stops by the Williams Apple Orchard to pick ingredients for her Country Apple Pie. Next she creates a Potato Bisque with bacon and cheddar and her specialty, Anna's Tourtiere. Anna delivers her meal to her fellow judges before the pie tasting begins!

This delightful cooking series is devoted to characters, cultures and food. Each week, host David Gale visits a different grandmother to cook, laugh and learn about her life. Hyun-Joo Cho practices spiritual self-healing through her cooking. Cold vegetarian salads and some warm apple wontons are for dinner.

Program: Ag PhD Episode #968
Air Date: Thursday, November 10, 2016 5:00am
Topic/Title: Ag PhD Harvest Loss Calculator, Residual Herbicide Application, Fall Nitrogen Application
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

Ag PhD Harvest Loss App is beneficial for farmers. Make a one foot square with PVC. Drop square in field and count kernels or beans. The calculation is for every two kernels of corn per square foot equals one bushel of yield loss. It is four soybeans per square foot and 16 kernels for wheat to equal one bushel of loss. A correction may be made to improve yield by the direction of the harvest of field so it is important to check field before, during and after harvest.

Fall nutrients application should be done when it is cold. The colder is better. For example, 50 degrees is good, but 32 is best. Anhydrous Ammonia is recommended form of nitrogen to apply. Soil type is also important and to apply to higher ground rather than lower ground.

Residual herbicide application should be given a day or two during harvest. Farmers should apply higher rate than normal and plant early. Put it where there will be no flood. Residual herbicides won't burndown existing weeds, so may need to add 2-4-D. Farmers need to make two passes with herbicide. Rain and snow will work herbicide into soil. However, as always, crop canopy is the best weed killer.

Weed of the Week is Velvetleaf. RoundUp is not that effective. For Corn, Python is very effective. Tripleflexx and Surestart also have Python in them and can be used on pH above 7.0. For Soybeans, use Python, Resource and Cadet. For wheat, use Sharpen followed by Huskie.

Program: Ag PhD Episode #969
Air Date: Thursday, November 10, 2016 5:30am
Topic/Title: Boron, Corn Traits
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

Managing nutrients by the acre is to plot out crop nutrition by the acre. Years ago, nutrients were spread the same amount across the entire field. Farmers need to soil test by the acre. Often micronutrients are key and the whole farm can increase in yield.

Fields may need multiple shots of Boron throughout the season. Tip backs on corn could be a lack of Boron. In soybeans, flowering is important. Boron should be 1.2 to 3.0 parts per acre. There is fear of overdoing it. Boron leaches so it needs to be applied annually. Applying it straight and all by itself is recommended. Mixing it with other chemicals can lead to it settling which causes problem.

Corn seed traits are important if corn root worm is an issue because it is a below ground problem. The hybrid seed is necessary if planting continuous corn. If not planting corn often, then rootworm insecticide will work. Corn borer is an above ground problem in the Midwest. The seed trait for corn borer is recommended in Midwest. If dealing with both below ground and above ground issues then Smartstax seed with both traits is recommended.

Weed of the Week is Pennsylvania Smartweed. It is a water weed found in ditches and waterways. It's an annual, so it cannot be allowed to go to seed. For corn, Verdict followed by Status is good. For soybeans, use the 3-Pre or Pursuit or Rapture followed by Liberty or RoundUp.

Program: Living Well Episode #412
Air Date: Tuesday, November 15, 2016 5:00am
Topic/Title: Fresh With Anna Olson and Loving Spoonfuls
Duration: 58:30 minutes
Style/Type: Human Interest
Source: ION Life
Issue(s) Addressed: Organic, healthy, local and culturally diverse cooking
Host(s): Anna Olson and David Gale
Guests: Regine Frankel

This inspirational series takes viewers inside Anna's world – a chef who truly lives food around the clock. Learn how you too can become inspired by fresh foods in your area, and watch as her enthusiasm motivates you to try new culinary creations of your own.

For the past eight years Anna has participated in the Eat to the Beat breast cancer fundraiser event. This event is all about healthy foods like Anna's Blueberry Muffins, and elegant hors d'oeuvres like Turkey and Trimming Pinwheels, and Squash and Cheddar Soufflés. See Anna in her full chef whites as this stunning event unfolds.

This delightful cooking series is devoted to characters, cultures and food. Each week, host David Gale visits a different grandmother to cook, laugh and learn about her life.

Regine Frankel tells riveting tales of surviving World War 2 as a Jew in France and sharing his recipe for vegetarian meatballs.

Program: Ag PhD Episode #969
Air Date: Thursday, November 17, 2016 5:00am
Topic/Title: Boron, Corn Traits
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

Managing nutrients by the acre is to plot out crop nutrition by the acre. Years ago, nutrients were spread the same amount across the entire field. Farmers need to soil test by the acre. Often micronutrients are key and the whole farm can increase in yield.

Fields may need multiple shots of Boron throughout the season. Tip backs on corn could be a lack of Boron. In soybeans, flowering is important. Boron should be 1.2 to 3.0 parts per acre. There is fear of overdoing it. Boron leaches so it needs to be applied annually. Applying it straight and all by itself is recommended. Mixing it with other chemicals can lead to it settling which causes problem.

Corn seed traits are important if corn root worm is an issue because it is a below ground problem. The hybrid seed is necessary if planting continuous corn. If not planting corn often, then rootworm insecticide will work. Corn borer is an above ground problem in the Midwest. The seed trait for corn borer is recommended in Midwest. If dealing with both below ground and above ground issues then Smartstax seed with both traits is recommended.

Weed of the Week is Pennsylvania Smartweed. It is a water weed found in ditches and waterways. It's an annual, so it cannot be allowed to go to seed. For corn, Verdict followed by Status is good. For soybeans, use the 3-Pre or Pursuit or Rapture followed by Liberty or RoundUp.

Program: Ag PhD Episode #970
Air Date: Thursday, November 17, 2016 5:30am
Topic/Title: Strip Till, Zinc
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

The Ag PhD Fertilizer Removal App tells how much crop will take up of fertilizer and how much the Stover will remove. Crop residue releases fertility. It can be bailed, fed to cows and spread again in field. The fertility value of stocks residue could be \$10-\$30 per acre. It must be bailed before rained on. It is recommended to run a plant analysis test on residue to tell how much nutrients is in it. Potassium is the number one nutrient in residue.

Zinc is a micronutrient. A field needs 1.8-3.5 parts per million of zinc. Normally, six inch soil tests are taken. Three inches equals one million pounds soil per acre. Zinc does not move or work down into soil. Zinc will move with erosion. It is recommended to put it in the soil. Roots are an inch below in the ground.

Strip tilling run slows and is work for person. Fall is better when land is dryer but the time crunch is a challenge. Strip tilling accomplishes lots of jobs at once, such as seed bed preparation, nutrient placement and residue management. It is recommended to do in Fall with shank machine for fertilizer and getting deeper in soil. A Colter machine is for use in Spring but fertilizer does not go very deep in soil. It works well for seed bed preparation and residue management.

Weed of the Week is Redroot Pigweed. It is a hairy plant and easier to kill than other Pigweed plants. For Corn use Balance Flexx or Verdict followed by Status. For Soybeans, use RoundUp or Liberty pre-emerge, followed by Cobra, Pursuit, or RoundUp. For wheat use Sharpen followed by Huskie.

Program: Living Well Episode #413
Air Date: Tuesday, November 22, 2016 5:00am
Topic/Title: Fresh With Anna Olson and Loving Spoonfuls
Duration: 58:30 minutes
Style/Type: Human Interest
Source: ION Life
Issue(s) Addressed: Organic, healthy, local and culturally diverse cooking
Host(s): Anna Olson and David Gale
Guests: Andrew Vegetato-Italian Ice Cream
April Horncastle-Pastry Chef/Bride To Be
Heidi Kuhner-Swiss Grandmother

This inspirational series takes viewers inside Anna's world – a chef who truly lives food around the clock. Learn how you too can become inspired by fresh foods in your area, and watch as her enthusiasm motivates you to try new culinary creations of your own. In this episode Anna throws a wedding shower lunch for her pastry chef April. Anna makes Beet and Buttermilk Soup, Luncheon Sandwich Torte and an Ice Cream Layer Cake.

This delightful cooking series is devoted to characters, cultures and food. Each week, host David Gale visits a different grandmother to cook, laugh and learn about her life. In this episode David visits the home of Swiss grandmother Heidi Kuhner, where he learns how to make Cheese Fondue, Linzer Torte and a Mushroom Souffle.

Program: Ag PhD Episode #970
Air Date: Thursday, November 24, 2016 5:00am
Topic/Title: Strip Till, Zinc
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

The Ag PhD Fertilizer Removal App tells how much crop will take up of fertilizer and how much the Stover will remove. Crop residue releases fertility. It can be bailed, fed to cows and spread again in field. The fertility value of stocks residue could be \$10-\$30 per acre. It must be bailed before rained on. It is recommended to run a plant analysis test on residue to tell how much nutrients is in it. Potassium is the number one nutrient in residue. Zinc is a micronutrient. A field needs 1.8-3.5 parts per million of zinc. Normally, six inch soil tests are taken. Three inches equals one million pounds soil per acre. Zinc does not move or work down into soil. Zinc will move with erosion. It is recommended to put it in the soil. Roots are an inch below in the ground. Strip tilling run slows and is work for person. Fall is better when land is dryer but the time crunch is a challenge. Strip tilling accomplishes lots of jobs at once, such as seed bed preparation, nutrient placement and residue management. It is recommended to do in Fall with shank machine for fertilizer and getting deeper in soil. A Colter machine is for use in Spring but fertilizer does not go very deep in soil. It works well for seed bed preparation and residue management.

Weed of the Week is Redroot Pigweed. It is a hairy plant and easier to kill than other Pigweed plants. For Corn use Balance Flexx or Verdict followed by Status. For Soybeans, use RoundUp or Liberty pre-emerge, followed by Cobra, Pursuit, or RoundUp. For wheat use Sharpen followed by Huskie.

Program: Ag PhD Episode #971
Air Date: Thursday, November 24, 2016 5:30am
Topic/Title: Copper, What's New from Corn Breeders
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

The AgPhD Corn Disease Field Guide App helps identify and recommend treatment for diseases discovered in the field. Doing everything right with fertility and seed selection there is still opportunity for disease. Erosion and tillage reduction is helpful, but there's the weather to consider. Heavy rainfall creates possibility for disease. There is always new seeds coming from corn breeders. There are rarely barren stocks with the new corn genetics and corn traits increasing disease tolerance and making higher yields. Biotechnology has benefitted seed breeding by mapping out genetics and running DNA. For example, it can be determined if a seed has good root system gene. One disease, Anthracnose Stock Root is still being work on for seeds. Copper is a yield limiting nutrient. It can affect seed quality. It is the disease nutrient and affects stand ability. On a six inch soil sample, copper needs to be 1.4 to 2.0 parts per million. The shell elasticity is important. For example, in soybeans, shells fall off if there is a lack of copper. Farmers can build up soil levels or feed the crop in season. Getting copper to proper level means it may not need to be done again for ten years. Crops do not pull that much copper out of the field seasonally, but the lack of it has a huge impact.

Weed of the Week is Wild Mustard. It is a small root annual and reproduces by seed. For corn pre-emerge, use Verdict, Balance Flexx, HPPDs and post-emerge use Status, HPPDs or Atrazine. For soybeans pre-emerge, use the Three-Pre and for post-emerge use Pursuit, RoundUp or Liberty. For wheat use Sharpen pre-emerge and Huskie post-emerge.

Program: Living Well Episode #414
Air Date: Tuesday, November 29, 2016 5:00am
Topic/Title: Fresh With Anna Olson and Loving Spoonfuls
Duration: 58:30 minutes
Style/Type: Human Interest
Source: ION Life
Issue(s) Addressed: Organic, healthy, local and culturally diverse cooking
Host(s): Anna Olson and David Gale
Guests: David Irish-David Irish's Farm
Evelyn Koop-Grandmother

This inspirational series takes viewers inside Anna's world – a chef who truly lives food around the clock. Learn how you too can become inspired by fresh foods in your area, and watch as her enthusiasm motivates you to try new culinary creations of your own. In this episode Anna delivers a working lunch for a meeting in progress at a local college. She puts together a scrumptious vegetarian menu including Vegetable Salad Rolls with a Cashew Cream, Honey Yogurt Cheesecake with Fresh Mango and a Roasted Garlic Vegetable Tart.

This delightful cooking series is devoted to characters, cultures and food. Each week, host David Gale visits a different grandmother to cook, laugh and learn about her life. In this episode David visits the home of Estonian Grandmother Evelyn Koop, who introduced rhythmic dancing to the Olympics. Evelyn shows David how to make Rollmops and Rosolje.

Program: Ag PhD Episode #971
Air Date: Thursday, December 1, 2016 5:00am
Topic/Title: Copper, What's New from Corn Breeders
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

The AgPhD Corn Disease Field Guide App helps identify and recommend treatment for diseases discovered in the field. Doing everything right with fertility and seed selection there is still opportunity for disease. Erosion and tillage reduction is helpful, but there's the weather to consider. Heavy rainfall creates possibility for disease.

There is always new seeds coming from corn breeders. There are rarely barren stocks with the new corn genetics and corn traits increasing disease tolerance and making higher yields. Biotechnology has benefitted seed breeding by mapping out genetics and running DNA. For example, it can be determined if a seed has good root system gene. One disease, Anthracnose Stock Root is still being work on for seeds.

Copper is a yield limiting nutrient. It can affect seed quality. It is the disease nutrient and affects stand ability. On a six inch soil sample, copper needs to be 1.4 to 2.0 parts per million. The shell elasticity is important. For example, in soybeans, shells fall off if there is a lack of copper. Farmers can build up soil levels or feed the crop in season. Getting copper to proper level means it may not need to be done again for ten years. Crops do not pull that much copper out of the field seasonally, but the lack of it has a huge impact.

Weed of the Week is Wild Mustard. It is a small root annual and reproduces by seed. For corn pre-emerge, use Verdict, Balance Flexx, HPPDs and post-emerge use Status, HPPDs or Atrazine. For soybeans pre-emerge, use the Three-Pre and for post-emerge use Pursuit, RoundUp or Liberty. For wheat use Sharpen pre-emerge and Huskie post-emerge.

Program: Ag PhD Episode #972
Air Date: Thursday, December 1, 2016 5:30am
Topic/Title: Winterizing Equipment, Soil Testing Manganese, Picking Soybean Varieties for Disease Tolerance
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

Winterizing farm equipment in Midwest. The diesel equipment and cold temperatures don't mix. Blended diesel fuel is used so fuel doesn't gel up. Farm shops are built so equipment can be stored and heated. Hydraulics need protection too. Sprayers need to be drained and cleaned so they can set outside.

Manganese should be 20-40 parts per million in soil. Soil tests show most farms are short. Manganese helps emergence. Unevenness in height of plants shows shortage of manganese. It also affects standability and disease tolerance. Foliar feeding will help immediately but adding manganese sulfate will work over 2-3 years.

Soybean varieties for disease tolerance can be addressed with fertility and drainage. Seed companies have a good handle on iron deficiency chlorosis. Best practice is to pick two varieties and plant them. There are no varieties that have complete resistance to white mold. Pick the two that are best and look for upright branching and standability. There are resistant varieties for phtolophythora, sudden death syndrome and brown stem rot which are diseases found in northern United States.

Weed of the Week is Wild Proso Millet. It is an annual grass weed that looks like small corn plants. For soybeans pre-emerge use Treflan, Sonalon, Prowl. For post, use Select, Assure, Roundup or Liberty. For corn use Eradicane pre-emerge and Roundup, Liberty or Accent post-emerge. For Wheat use Prepare pre-emerge and Axial post-emerge.

Program: Living Well Episode #415
Air Date: Tuesday, December 6, 2016 5:00am
Topic/Title: Fresh With Anna Olson and Loving Spoonfuls
Duration: 58:30 minutes
Style/Type: Human Interest
Source: ION Life
Issue(s) Addressed: Organic, healthy, local and culturally diverse cooking
Host(s): Anna Olson and David Gale
Guests: Luzia Nunes

This inspirational series takes viewers inside Anna's world – a chef who truly lives food around the clock. Learn how you too can become inspired by fresh foods in your area, and watch as her enthusiasm motivates you to try new culinary creations of your own.

Anna's friend Susan is having an important birthday and is looking forward to an elegant dinner with a few of her close friends. Anna starts by preparing a Slow Roasted Prime Rib with a rich mushroom jus (brandy). She then heads to her friend Cheryl's farm gate stand to get fresh ingredients for a Warm Squash and Ricotta Salad. She finishes the meal with a Honey Walnut Torte – a classic Viennese birthday cake.

This delightful cooking series is devoted to characters, cultures and food. Each week, host David Gale visits a different grandmother to cook, laugh and learn about her life.

Luzia Nunes left her home in the Azores to teach David how to cook authentic Portuguese-style fish stew and reveals why she's called "Crazy Luzia".

Program: Ag PhD Episode #972
Air Date: Thursday, December 8, 2016 5:00am
Topic/Title: Winterizing Equipment, Soil Testing Manganese, Picking Soybean Varieties for Disease Tolerance
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

Winterizing farm equipment in Midwest. The diesel equipment and cold temperatures don't mix. Blended diesel fuel is used so fuel doesn't gel up. Farm shops are built so equipment can be stored and heated. Hydraulics need protection too. Sprayers need to be drained and cleaned so they can set outside.

Manganese should be 20-40 parts per million in soil. Soil tests show most farms are short. Manganese helps emergence. Unevenness in height of plants shows shortage of manganese. It also affects standability and disease tolerance. Foliar feeding will help immediately but adding manganese sulfate will work over 2-3 years. Soybean varieties for disease tolerance can be addressed with fertility and drainage. Seed companies have a good handle on iron deficiency chlorosis. Best practice is to pick two varieties and plant them. There are no varieties that have complete resistance to white mold. Pick the two that are best and look for upright branching and standability. There are resistant varieties for *Phytophthora*, sudden death syndrome and brown stem rot which are diseases found in northern United States.

Weed of the Week is Wild Proso Millet. It is an annual grass weed that looks like small corn plants. For soybeans pre-emerge use Treflan, Sonalon, Prowl. For post, use Select, Assure, Roundup or Liberty. For corn use Eradicane pre-emerge and Roundup, Liberty or Accent post-emerge. For Wheat use Prepare pre-emerge and Axial post-emerge.

Program: Ag PhD Episode #973
Air Date: Thursday, December 8, 2016 5:30am
Topic/Title: Water Quality, Finance Offers, Soil Testing Iron
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

Non-farmers are concerned about the effect farmers have on water quality. Many nutrients that go into ground through rainfall stay in the ground. Erosion will move nutrients. Nitrogen is the only concern, but crops use a lot of nitrogen so it is unlikely to leach into soil. There is more concern with cities and what is going on in them than what farmers are doing in the fields.

Soil testing for iron is important. It should be 20-40 parts per million. Plant tissue analysis should also be done. Iron can be expensive to replenish. Foliar feeding may not increase yield. A high pH doesn't not also mean there is an iron deficiency, it means the iron is in the wrong form. Drainage is important. In-furrow feeding is better than foliar feeding because foliar may not increase yield.

Finance offers for crop inputs are done by financial institutions of John Deere and Rabo. Companies want to sell products and may require minimum monetary purchase and/or minimum product purchase. Take no big risks. There are no discounts offered with credit. Local banks are best way to go if available to finance early and if the farmer has adequate credit line.

Weed of the Week is Western Salsify also known as goat's beard. It is a biennial. It looks like grass first year, then bolts into a dandelion flower. For non-crop use Tordon or 2-4-D. For corn use Status and Verdict. For Soybeans use Sharpen, Roundup or Liberty. For wheat use Sharpen and Huskie.

Program: Living Well Episode #416
Air Date: Tuesday, December 13, 2016 5:00am
Topic/Title: Fresh With Anna Olson and Loving Spoonfuls
Duration: 58:30 minutes
Style/Type: Human Interest
Source: ION Life
Issue(s) Addressed: Organic, healthy, local and culturally diverse cooking
Host(s): Anna Olson and David Gale
Guests: Andrea Vincent

This inspirational series takes viewers inside Anna's world – a chef who truly lives food around the clock. Learn how you too can become inspired by fresh foods in your area, and watch as her enthusiasm motivates you to try new culinary creations of your own.

Anna's parents are visiting and she's preparing a traditional Sunday Supper. In order to make a wholesome, hardy meal, she pairs a Whole Roasted Pork Loin in a mustard marmalade glaze with Roasted Root Vegetables in a warm vinaigrette. For desert, Anna heads to Whitty Farm to get fresh pears for her Spiced Chocolate Pear Tart.

This delightful cooking series is devoted to characters, cultures and food. Each week, host David Gale visits a different grandmother to cook, laugh and learn about her life.

Hungarian grandmother Andrea Vincent tells heart-wrenching tales of life and love while making Sour Cherry Soup and a Wine Cream.

Program: Ag PhD Episode #973
Air Date: Thursday, December 15, 2016 5:00am
Topic/Title: Water Quality, Finance Offers, Soil Testing Iron
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/ Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

Non-farmers are concerned about the effect farmers have on water quality. Many nutrients that go into ground through rainfall stay in the ground. Erosion will move nutrients. Nitrogen is the only concern, but crops use a lot of nitrogen so it is unlikely to leach into soil. There is more concern with cities and what is going on in them than what farmers are doing in the fields.

Soil testing for iron is important. It should be 20-40 parts per million. Plant tissue analysis should also be done. Iron can be expensive to replenish. Foliar feeding may not increase yield. A high pH doesn't not also mean there is an iron deficiency, it means the iron is in the wrong form. Drainage is important. In-furrow feeding is better than foliar feeding because foliar may not increase yield.

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Weed of the Week is Western Salsify also known as goat's beard. It is a biennial. It looks like grass first year, then bolts into a dandelion flower. For non-crop use Tordon or 2-4-D. For corn use Status and Verdict. For Soybeans use Sharpen, Roundup or Liberty. For wheat use Sharpen and Huskie.

Program: Ag PhD Episode #974
Air Date: Thursday, December 15, 2016 5:30am
Topic/Title: How Weeds Reproduce, Resicore, Roundup Ready Plus
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

A weed's purpose is to reproduce. Annuals reproduce by seed. They grow, put on a seed head and spread. Biennials and perennials can spread through a field by rhizomes, stolon and tubers. They spread underground and pop up elsewhere.

Resicore is an herbicide that is a combination of other products. It is Callistro, Surpass and Stinger. It is good on Canada thistle, water hemp, ragweed and pigweed. It is recommended to do a different herbicide pre-emerge and post-emerge. Callistro is off patent and is cheaper now.

Roundup Ready Plus is an herbicide program. Farmers watch for herbicide rebate programs for pre and post emerge so that they can save money. They talk to both seed and crop protection producers. Retailers need to be asked who is responsible for paperwork. If they do it for the farmer or farmer does it.

Weed of the Week is Jimson Weed. It is annual that reproduces by seed. It is highly poisonous. It can be sold as ornamental by landscapers as Thornapple or Moonflower. Sharpen is good for corn, wheat and soybeans pre-emerge. For post-emerge use Widematch and Edition. There are a variety of other herbicides that apply to individual crops.

Program: Living Well Episode #417
Air Date: Tuesday, December 20, 2016 5:00am
Topic/Title: Fresh With Anna Olson and Loving Spoonfuls
Duration: 58:30 minutes
Style/Type: Human Interest
Source: ION Life
Issue(s) Addressed: Organic, healthy, local and culturally diverse cooking
Host(s): Anna Olson and David Gale
Guests: Ann Bering-White Meadows Maple Syrup Farm
Winifred Field-Grandmother
Janet-Winifred's Daughter

This inspirational series takes viewers inside Anna's world – a chef who truly lives food around the clock. Learn how you too can become inspired by fresh foods in your area, and watch as her enthusiasm motivates you to try new culinary creations of your own. Anna prepares a special meal that both adults and children can enjoy for her guests who have kids. She makes Sweet Onion Dip with Veggies, Three Cheese Pasta Bake, Maple Garlic Roasted Chicken and Very Vanilla Cupcakes that everyone can decorate themselves. Anna also visits White Meadows Maple Syrup Farm

This delightful cooking series is devoted to characters, cultures and food. Each week, host David Gale visits a different grandmother to cook, laugh and learn about her life. In this episode David visits the home of British Grandmother Winifred Field who is from London, England and a decorated war hero. While Winifred talks about her life in England and Canada, they make Classic Steak and Kidney Pie and Poor Man's Trifle. Winifred's daughter Janet also gives them a hand in the kitchen.

Program: Ag PhD Episode #974
Air Date: Thursday, December 22, 2016 5:00am
Topic/Title: How Weeds Reproduce, Resicore, Roundup Ready Plus
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

A weed's purpose is to reproduce. Annuals reproduce by seed. They grow, put on a seed head and spread. Biennials and perennials can spread through a field by rhizomes, stolon and tubers. They spread underground and pop up elsewhere.

Resicore is an herbicide that is a combination of other products. It is Callistro, Surpass and Stinger. It is good on Canada thistle, water hemp, ragweed and pigweed. It is recommended to do a different herbicide pre-emerge and post-emerge. Callistro is off patent and is cheaper now.

Roundup Ready Plus is an herbicide program. Farmers watch for herbicide rebate programs for pre and post emerge so that they can save money. They talk to both seed and crop protection producers. Retailers need to be asked who is responsible for paperwork. If they do it for the farmer or farmer does it.

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Program: Ag PhD Episode #975
Air Date: Thursday, December 22, 2016 5:30am
Topic/Title: Ag PhD Winter Workshops. Soybean Population and Row Spacing, Why Prepay
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

AgPhD workshops are free to attend, plus food is provided and free agronomy books. Farmers can learn about new tech, products and how to stay profitable and get return on investment. Also, the topic of resistant weeds and effective, economical ways to control them. Finally, 2016 test and research results will be reviewed.

Soybean row spacing and population varies per farm. For spacing, it is usually a decision between 30 inch and 10 inch distance between rows. White mold can happen in closer rows and decreased populations. If no disease, then 10 inch spacing is fine. Spacing is more important than population. There must be seeds per acre to push population standability and weed control. For standability, 15-20 inch is best.

Prepaying for inputs reduces taxes, gets better deals and locks in supply. When prepaying, farmer should take product immediately to guarantee it's available when needed or work only with trusted supplier.

Weed of the Week is Blacksee Plantain. It is a perennial weed that is short and close to ground. It has an extensive root system. Use a strong rate of Roundup as pre-emerge and post-emerge. Improve drainage on compacted areas.

Program: Living Well Episode #418
Air Date: Tuesday, December 27, 2016 5:00am
Topic/Title: Fresh With Anna Olson and Loving Spoonfuls
Duration: 58:30 minutes
Style/Type: Human Interest
Source: ION Life
Issue(s) Addressed: Organic, healthy, local and culturally diverse cooking
Host(s): Anna Olson and David Gale
Guests: Charles Baker-Stratus Winery
Maria-Angelica Enriquez- Grandmother
Gabriela-Maria-Angelica's Daughter

This inspirational series takes viewers inside Anna's world – a chef who truly lives food around the clock. Learn how you too can become inspired by fresh foods in your area, and watch as her enthusiasm motivates you to try new culinary creations of your own. Anna hosts a wine maker's dinner at a friend's winery. She builds a menu around particular wines using flavors that will go well with red wines. Anna makes Rosemary Roasted Rack Of Lamb, Date and Pistachio Salsa, Three Onion Couscous, Parsnips Bakes With Moroccan Spices and Baked Figs with Honey and Yogurt.

This delightful cooking series is devoted to characters, cultures and food. Each week, host David Gale visits a different grandmother to cook, laugh and learn about her life. In this episode David visits the home of Chilean Grandmother Maria-Angelica Enriquez. They make Seafood Soup and Corn Pie. Gabriela-Maria's daughter gives them a hand. While they are cooking they talk about Gabriela-Maria's life in Chile and Canada.

Program: Ag PhD Episode #975
Air Date: Thursday, December 29, 2016 5:00am
Topic/Title: Ag PhD Winter Workshops. Soybean Population and Row Spacing, Why Prepay
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

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Prepaying for inputs reduces taxes, gets better deals and locks in supply. When prepaying, farmer should take product immediately to guarantee it's available when needed or work only with trusted supplier.

Weed of the Week is Blackseed Plantain. It is a perennial weed that is short and close to ground. It has an extensive root system. Use a strong rate of Roundup as pre-emerge and post-emerge. Improve drainage on compacted areas.

Program: Ag PhD Episode #976
Air Date: Thursday, December 29, 2016 5:30am
Topic/Title: Ag PhD Soybean Diseases App, Calculating ROI, Nixocor, Piaxor D, TrivaPro,
Duration: 30 minutes
Style/Type: Magazine Format
Source: Ag PhD Productions/Alex George
Issue(s) Addressed: Agriculture/Economics
Host(s): Darren and Brian Hefty

The Ag PhD Soybean Diseases App helps farmers identify disease and recommends treatment in the field.

Calculating return on investment should be kept simple. For example, if gain is \$15 and cost is \$5, then net gain is \$10. Then take gain of \$10 divide by 5 which equals 2. Multiple 2 by 100 to equal 200% return on investment. Annual percent of return if investment was only for six months, then 2 multiplied by 200% equals 400% return on investment. Or divide 15 by 5 for a 3 to 1 ratio of return on investment. This is a no brainer for most farmers. Also, pay per hour should be considered. Farmers should do the \$100 per hour jobs themselves and pay someone to do the \$5 per hour jobs.

3 Mode of Action Fungicides are becoming the trend because resistance is beginning to show using Headline, Quadris and Evito. A blend is now recommended of fungicides. For example, Trivapro has Quatris and Nexicor and Piaxor D have Headline.

Weed of the Week is Heath Aster. It is a simple perennial weed. It reproduces by seed not rhizomes. Mow weekly so weed does not go to seed. For burndown use 2-4-D and Dicamba or Tordon in non-tree area. Late Fall or early Spring is best time to spray. For in field, use Roundup.