Agricultural Newsletter

UW-Madison College of Ag & Life Science
University of Wisconsin-Extension

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UW Extension
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Recycle Your Ag Plastics

Adapted from Tim Jergenson
UW-Extension Agricultural Agent, Barron County

Revolution Plastics, a company with Midwest operations based out of Madison, WI and facilities in Appleton and Eau Claire, is expanding their ag plastics recycling business into western Wisconsin. They are currently operating in St. Croix and Dunn Counties. This company is planning to collect ag plastics from farmers with on-farm recycling dumpsters. The dumpsters are free and collection is free to the farmer. A representative from Revolution Plastics will be attending the CAFO Conference at WITC in Rice Lake on February 9 (see article on pg. 2).

Normally UW-Extension does not promote a particular business, but Revolution Plastics is currently the only company doing this kind of recycling in the area, and it is a service long overdue for farmers. Ag plastics cannot be burned in the Barron County Incinerator. All ag plastics coming into their plant must be separated out and then land-filled. This process is costly and not environmentally sustainable. Thus, recycling ag plastics can save taxpayers money. Here is a list of guidelines to follow related to recycling ag plastics with Revolution Plastics:

- Generate 3,000-4,000 lbs of ag plastics per year. If a single farm doesn't generate enough, several farms can go together and share a dumpster.
- Include ONLY Low Density Polyethylene (#4). This includes bale wrap, ag/grain bags, most bunker covers, oxygen barrier film, irrigation tape/tubing/cover, fumigation covers, greenhouse and hoop house films.
- Not accepted are bunker covers with nylon scrim, twine, net wrap or other mixed plastics.
- Remove trash, wood, rocks, twine, net wrap, tires, and other foreign materials.
- No need to separate approved ag plastics.
- Dispose of plastic in the provided dumpster as soon as possible to prevent excessive dirt.
- Compact the plastic as much as possible without damaging the dumpster.
- Keep lids closed to prevent moisture.
- Keep container in an easily accessible location that can be accessed with a full-size garbage truck.

To learn more about this company and/or sign up for the service, visit: https://www.revolutionplastics.com/index.php and scroll down to the "Join the Revolution" section. The initial distribution of dumpsters will be at a central location, so farmers must pick them up. After that, collection and redistribution will be on the farm.

Agricultural NEWSLETTER

produced by
University of Wisconsin-Extension and
UW-Madison College of Ag & Life Sciences

Representing Burnett, Sawyer, and Washburn Counties:

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Richard Otto Wiegand
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Phil Holman
Spooner Ag Research Station
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715-635-3735

spooner.ars.wisc.edu

Representing Ashland, Bayfield, and Douglas Counties:

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Matt Cogger
Area Agricultural Agents
715-373-6104

Jane Anklam
Horticulture & Agricultural Agent
715-395-1515

Improve Your Nutrient Management Plan at CAFO Conference

Otto Wiegand & John Haack
UW-Extension
Spooner Agricultural Research Station

This year's CAFO Conference is entitled "Reducing Your Risk" and will be held on Thursday, February 9, 2017 at the WITC Conference Center in Rice Lake. This is an update meeting for WPDES permitted CAFO owners & managers, manure haulers, nutrient management plan writers and engineers. Session goals include improving nutrient management plan implementation and providing other information on regulations that may affect large farming operations.

The agenda includes:

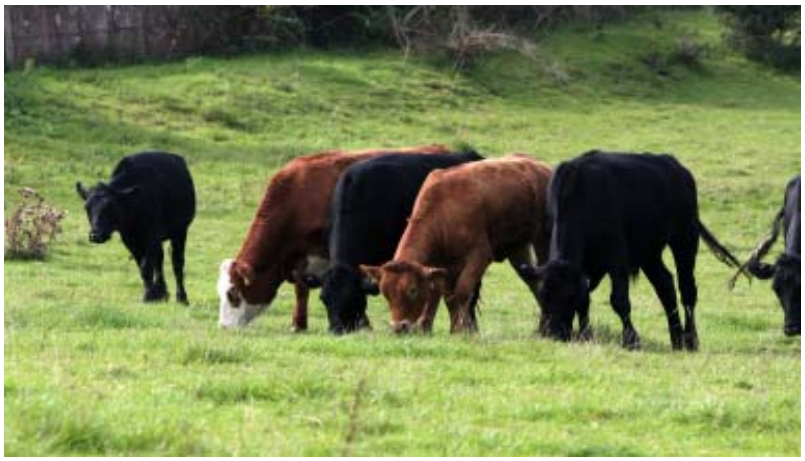
- 10:30 AM - Early Bird Sessions (optional)
  - Coffee and discussion with WDNR and county staff on farm-specific concerns
  - Recycling silo bags and covers with Revolution Plastics
- 11:30 AM Lunch (Lunch and break food included in registration cost)
- 12:00 PM Conference Begins
  - Town road regulation and farm implement challenges
  - Production Site: How to stay in compliance with your permit
  - Runoff control/collection from feed storage areas and animal lots
  - Monitoring, Reporting & Compliance: How to stay in compliance with your permit
  - Nutrient Management: How to stay in compliance with your permit
  - Nutrient Management: Surface applications, CAFOs, and cover crops
  - DNR Panel Q&A

Registration is $15 in advance (by Feb 1st) or $20 at the door. Advance payment can be made in check or credit card (credit cards cannot be accepted at the door). To register, contact Kim at Barron County UW-Extension, 715-537-6250 x6. CCA Credits are available.

To reach WITC from the south, take US 53 to CTH O, exit CTH O and turn right. Follow CTH O to Pioneer Ave. Turn left and proceed to South St. Turn left and proceed to College Drive. Turn right and proceed to WITC. From the west / northeast, take WI 48 to US 53 and turn on US 53 south. Take U.S. 53 to CTH O, exit CTH O and turn left. Follow CTH O to Pioneer Avenue. Turn left and proceed to South St. Turn left and proceed to College Drive. Turn right and proceed to WITC.

Use Laboratory Diagnosis to Determine Deworming Strategies **for Cattle on Grass**

Sandy Stuttgen, DVM
UW Extension Agriculture Educator, Taylor County



Wisconsin's 2016 growing season was "good for grass" as abundant rainfall and optimal temperatures supported forage production. For certain, internal parasites whose life cycle depends upon grass and grazing ruminants, proliferated in response to all that grass.

Efficacy of the most commonly used dewormers today is 59%, and history shows efficacy decreasing every year. Bottom line: 41% of your cattle's worm may survive treatment if you routinely use a pour-on or injectable dewormer. Gone are the days of simply deworming cattle with a one-size fits all approach, while blissfully ignorant of the complexity involved. Seek veterinary guidance to develop a deworming protocol tailored to your farm's management. Base your protocols on proper worm diagnosis, which involves performing fecal egg counts (FEC). The WI Modified Sugar Floatation is a preferred FEC method. Test kits used for detecting internal parasites of small animals are not sensitive enough for use with ruminant herbivores.

Life cycle stages of gastrointestinal worms (helminths or nematodes, like *Ostertaia, Cooperia* and *Haemonchus*) are found within cattle, in feces, and on grass. The worms need all three environments in which to complete their lifecycle; therefore, several opportunities exist for interrupting their growth. One such opportunity is afforded by Wisconsin's winter. Pre-puberty and adult worm stages reside inside cattle, and may overwinter in cattle, serving as a source of eggs defecated on pastures in the spring. Larval stages of the worm survive frozen pasture conditions and also serve as a source of infestation as the grass begins to grow in the spring.

Deworming products are administered to cattle in an attempt to kill worm stages found inside cattle. Deworming late in the fall after several hard freezes will help reduce the number of internal worm stages carried over winter by cattle, and any treated survivors will be depositing their eggs into frozen conditions. Helminth eggs do not survive freezing. Performing a laboratory fecal egg count reduction test (FECRT) along with species identification of the surviving worms will allow you to develop a treatment strategy for those internal, possibly dewormer resistant, survivors.

Deworming itself does not affect the worm stages out on grass at the time the cattle are treated; however, our management of treated cattle does affect what type of, and where, worm eggs are deposited. These resistant survivors probably originated from resistant pasture larvae, who will overwinter outside. FECRT and species identification of the worms over-wintering in cattle provides needed information for developing spring deworming plans for grazing cattle consuming these resistant larvae.

Allow dewormed stock to remain in the same area for at least a week after treatment. Once moved onto another paddock, larvae that survived treatment are providing resistant eggs to this new area. When stockpiled forages or bedding packs are used, resistant eggs may find themselves in micro-environments conductive to their hatching into resistant larvae.

Next spring allow your oldest stock to first graze areas you suspect resistant larvae may reside. Older animals are more tolerant of worms, and with FECs and species identification 30 days after turnout, you will have an indication of the pasture's larvae infestation. Perform a 14-day post treatment FECRT to know the efficacy of your dewormer investment. To be considered efficacious, the FECRT should be 95% or better.

Why Fields Need Lime AGAIN

Phil Holman
Superintendent
Spooner Ag Research Station

University recommendations are to soil test every 2-3 years or once in a rotation. At the Spooner Ag Research Station, we soil test our crop fields regularly and our fields used for research trials every fall. This fall these soil test results showed a lower soil pH than last year. In fact, when comparing soil test results for 15 fields, the soil pH was 0.4 points lower in fields tested in 2016 compared to those same fields in 2015. Additionally, soil tests in 2016 from a 20-treatment plot area averaged 0.3 point lower in pH compared to 2015. This one year decline in pH was surprising and caused us to review our historic soil test results. Our records indicated that fields were limed in 2003, 2004, 2006, and 2012. The fields limed in 2012, while declining in pH, are still above the recommended pH for corn (6.0) or soybeans (6.3) and required no added lime. However, fields limed in 2006 or earlier tested below 6.0 and will require additional lime. Management of Wisconsin Soils (UWEX Pub. A3588) lists the following reasons why soils become acidic: acidic parent material, leaching of cations, bases removed by crops, use of acid-forming fertilizers, and other minor reasons. To determine the impacts of acidic parent material, we analyzed samples from non-farmed tree strips adjacent to our crop production fields. These non-farmed forested soils tested 4.7 and 4.4. These values clearly support the need for lime and farmers who have ever cleared land to make fields can attest to that. Since our soils with acidic parent material have been limed, we wouldn't expect the underlying parent material to have much influence on pH decline.

Leaching of cations happens when there are a significant number of leaching events. Cations, or positively charged nutrients, do not leach easily as they are held to the negative charge of soil particles, but some cations are dissolved in the soil water and can be leached. The removal of bases by crops can lower soil pH by removing calcium, magnesium, potassium and sodium in the crop being harvested. These basic nutrients are removed in greater quantities than any of the acidic nutrients. Another cause of decline in soil pH is the addition of nitrogen fertilizers. When nitrogen fertilizers are added, chemical reactions convert the fertilizer into forms of plant-available nitrogen. This natural chemical reaction releases free hydrogen, the measure of pH. A five-year field study on corn at the Arlington Research Station showed that the amount of nitrogen needed to grow corn resulted in a pH decline that required 2 tons of lime per acre.

There are other minor causes of soil acidification including acid rain. However, on a per pound of lime basis, the leaching of cations, removal of bases and acidification from nitrogen are more likely to cause soil pH to decline than any other causes. We will be ordering lime for several of the station fields, liming most of individual plots, and looking at another soil pH-related research trials next year.

Shepherds' Clinic to be Held in Rice Lake

Adapted from Tim Jergenson
Agricultural Agent
Barron County

The Indianhead Sheep Breeders Association Shepherds' Clinic will be held Saturday, February 4, 2017, at the Conference Center of the Wisconsin Indianhead Technical College, 1900 College Drive, Rice Lake.

The Shepherds' Clinic begins at 8:45 AM with a welcome followed by the keynote address at 9:00 AM Registration opens at 8:00 AM.

This annual workshop continues to be one of the largest educational events of the winter for sheep producers and 4-H & FFA youth in the upper Midwest. The 2017 Shepherds' Clinic has been expanded to include goats as well as sheep. The program will focus on profitability and sustainability, genetics and Reproduction, and flock health plus special breakout sessions for youth enrolled in 4-H and FFA livestock projects.

The keynote speaker for the 2017 Shepherds' Clinic is Susan Schoenian, Sheep and Goat

Specialist, at the Western Maryland Research & Education Center, University of Maryland Extension. Schoenian is a nationally known expert specializing in profitable & sustainable sheep and goat production systems.

The Youth Sessions will feature Dr. Justin Luther from UW-River Falls discussing "Showmanship" and Cami Subra, sheep producer from Taylor, WI talking about "Feeding Lambs for Showing at the Fair." Maria Bendixon, Chippewa Valley Technical College, Marlin Subra, sheep producer from Taylor, WI, and Tim Jergenson, UW-Extension-Barron County will provide presentations that focus on profitability and sustainability of sheep enterprises. Heather Landin will discuss "Wool for Fun and Profit."

A complete list of topics and registration information is available at the Indianhead Sheep Breeders Association (ISBA) website, https://indianheadsheep.wordpress.com/. Registration forms can be downloaded from the ISBA website.

To register online, visit http://barron.uwex.edu/. Click "2017 Shepherds' Clinic and Tradeshow" to register. The registration fee to attend the Shepherds' Clinic is $45 per person for ISBA members and $50 per person for non-members. Members of the Wisconsin Sheep Breeders Assn. receive a $5 discount off their registration fee. 4-H and FFA members pay only $15 per person for the Shepherds' Clinic. The registration fee covers the program costs, refreshments and the noon meal. The registration deadline is February 1, 2017. Late registrations cost an addition $10 for adults and $5 for youth.

Grain Management in Low-Margin Years Helps Farmers Thrive

Tim Jergenson and Jerry Clark
Agricultural Agents
Barron & Chippewa Counties

UW-Extension in Barron and Chippewa Counties will be offering crop farmers the opportunity to focus on those management practices that will enable you to not only survive financially, but thrive in 2017. The program will be offered on Monday, February 13, 2017 at the Conference Center at the Wisconsin Indianhead Technical College, 1900 College Drive, Rice Lake. The program begins at 10:00 a.m. and should conclude by 2:30 p.m. The cost for registration is $15 person and includes presentation handouts and lunch. AgStar is a generous co-sponsor of this program. For more information contact the Barron County UW-Extension Office at 715-537-6250 or the Chippewa County Extension Office at 715-726-7950.

Topics and Presenters **

- **Soybean Inputs that Deliver the Highest ROI in a Low-Margin Year –** Shawn Conley, UW Agronomy, Soybean and Small Grains Specialist
- **Practical Weed Management for Low-Margin Years** – Dan Smith, UW NPM, Southwest Regional Specialist
- **Fundamental Soil Fertility Strategies for Success** – Carrie Laboski, UW Soil Science, Soil Fertility/Nutrient Management Specialist **(via video recording)**
- **How to Survive and Thrive on Current Corn Price Projections** – Joe Lauer, UW Agronomy, Corn Specialist
- **Low Grain Prices = Smart Disease Management Decisions** – Damon Smith, UW Plant Pathology, Field Crops Pathology Specialist
- **Managing Insects Economically Using Conventional Hybrids and Thresholds** – Bryan Jensen, UW Entomology, Field Crops Entomology Specialist
- **Machinery/Technology Management and Tillage Considerations to Reduce Operational Costs –** Francisco Arriaga, UW Soil Science, Soil Science Specialist and Brian Luck, UW Biological System Engineering, Machinery Specialist
- **Partial Budget Analysis: A Practical Tool for Low Margin Years** - Paul Mitchell, UW Ag & Applied Econ, Cropping Systems Specialist

** The order of presentations is subject to change, but all topics will be covered by the presenter listed.

Date of Planting by Maturity Group in Soybeans: Yields higher in 2016

Phil Holman
Superintendent
Spooner Ag Research Station

In 2014, 2015 and 2016, we completed a Date-of-Planting (DOP) trial for soybeans. This trial is part of a PhD graduate study that looked at DOP at multiple sites and included when to switch soybean maturity and how soybean maturities differ in growth stage and nutrient uptake during the growing season. It has been a very interesting trial to conduct, as data collection was needed on 30 plot treatments two or three times per week throughout the growing season. For the Spooner site, planting dates were 1) early (as possible) May; or 2) May 20, June 1, June 10 and June 20 (see table below). Maturity groups 1.5, 1.0 and 0.5 were seeded for the first 2 plantings. The June 1 and June 10 plantings used maturity groups 1.0, 0.5 and 0.0. The last planting date used 0.5, 0.0 and 0.05 maturity groups. Two varieties of each maturity group were planted each date. Thus, the 0.5 maturity group was a control reference as those varieties were the ones planted each date of planting.

Yields were relatively low in 2014, average in 2015 and good in 2016. Yields averaged over all three years are shown below. Harvest data shows that the highest yields (43.2 bu/a) were achieved with the longest maturity for the May 20th planting date. There appears to be no advantage to trying to push planting dates earlier. These data indicate there is a yield decrease for all maturity groups after May 20th. As mid-May approaches, producers must determine whether or not planting conditions are favorable and how long planting will take if they want to maximize yields.

As to which maturity rating farmers should plant, these trials have been fairly close in yield between the 0.5 and 1.0 and even for the 1.5 group soybeans. Not shown is data from the UW Soybean Variety trials that has been analyzed over several years. Each year, yields by variety maturity group 0.5 to 1.5 are summarized. Soybean yields are similar for both average yield and maximum variety yield for varieties in the 0.7 to 1.2 maturity group range. The longer and shorter maturity groups have fewer entries, and lower confidence in their yield averages. Statistical analysis of all yields, shows a slight increase in yield with longer maturities. Thus, a producer should select the longest season maturity group that they are comfortable with based on their harvest schedule and number of acres.

	Group 1.5	Group 1.0	Group 0.5	Group 0.0	Group 0.05
Early May	40.9	40.5	36.7		
20-May	43.2	41.2	40.1		
30-May		38.5	38.5	37.7	
10-Jun		40.5	40.9	37.1	
20-Jun			30.8	29.9	24.9

Variety Trial Results at the UW-Spooner Ag Research Station

Corn Grain and Silage: http://corn.agronomy.wisc.edu/

Soybean: http://soybean.uwex.edu/

Oats: http://www.coolbean.info/small_grains/variety_trial_results_small_grains.php

Grazing For Change

Adapted from Jessica Turtle
Hungry Turtle Institute

The Hungry Turtle Institute cordially invites you to attend their annual grazing workshop entitled *Grazing for Change*, with keynote speakers Gabe and Paul Brown. The event takes place on Thursday, Feb. 9 from 8:00 AM to 6:00 PM. The Institute is located at 110 Keller Ave. N, Amery, downtown on Hwy 46.

If you are unfamiliar with Gabe and Paul Brown, they are from Bismarck, ND and are famous for their work in cover crops. During the workshop, they will be discussing the principles and practices of holistic management. This is an essential event for farmers and ranchers seeking new tools and practices to cope with drought, rising production costs, and pasture availability. Subjects for discussion include soil regeneration, cover crops, integrating livestock, stacking enterprises, direct marketing farm products, and generational transitioning. There will be an expert panel discussion.

For more information, please contact Jessica Turtle, Program Director at 715-268-3484. To learn more about Gabe Brown's visit, contact www.brownsrach.us. You may also contact Lynn Johnson at NW Graziers Network 715-268-8778, or Otto Wiegand at UW-Extension at Spooner 715-635-3506 for information. Registration can be done directly at www.eventbrite.com or over the phone 715-268-3484. General Admission - $50, MN/WI Farmers - $40, Students - $25, HTFC Members - $25.

This Quarter's Events

Contacts: UW-Extension Ag Agents Otto Wiegand or Kevin Schoessow, Spooner Station, 715-635-3506, Jane Anklam, Douglas Co, 715-395-1363, Jason Fischbach or Matt Cogger, Ashland & Bayfield Counties, 715-373-6104, Tim Jergenson, Barron Co, 715-537-6250 for more information.

Jan 17-18, Tues-Weds, 10-3:30 – Rice Lake Farm Show – Cedar Mall

Jan 28, Sat , 11-3 – Northern Wis Beef Producers Annual Meeting, Rice Lake – Turtleback Conference Center, contact Kate Whiting 715-642-0804

Feb 2-4, Thurs-Sat – GrassWorks Grazing Conference, Wis. Dells – Chula Vista Resort, contact **Heather Flashinski** 715-289-4896

Feb 4, Sat – Indianhead Shepherds Clinic, Rice Lake – WITC, contact Tim Jergenson 715-537-6250, or register on-line at Indianhead Sheep Breeders Assoc (see article)

Feb 4, Sat, 8 - 4:15 - Introduction to Bees and Beekeeping Workshop - Menomonie Alliance Church, 502 21st Street North, Menomonie, WI, registration deadline Jan. 28, 2017. Call 715-265-9284 for more information.

Feb 9, Thurs, 10:30-2:30 – Regional CAFO Conference, Rice Lake – WITC, contact Tim Jergenson, 715-537-6250 (see article)

Feb. 9, Thurs, 8:00 – 6:00 – Grazing for Change Workshop, Amery – Hungry Turtle Institute, features Gabe and Paul Brown, contact www.eventbrite.com, 715-268-3484 (see article)

Feb 13, Mon, 10-2:30 - Grain Management in Low-Margin Years, Rice Lake – WITC (see article)

Feb 22-23, Weds-Thurs – Midwest Manure Summit, Green Bay – Radisson Hotel, contact www.midwestmanure.org, or CALS in Madison 608-263-1672

Feb 23-25, Thurs-Sat – MOSES Organic Conference, LaCrosse – early registration discount by Jan 17 and Feb. 9, contact MOSES at 715-778-5775, or www.mosesorganic.org

Mar 3, Fri - Wisconsin Dairy & Beef Well-Being Conference, Stratford – Country Aire and Equity Livestock, contact Marathon Co UW-Extension, 715-261-1230

Mar 4, Sat, 9-11 – Meat Animal Quality Assurance (MAQA), Spooner – Crystal Creek, contact Anna Demers, UWEX 715-635-4444

Mar 15, Weds, 9:00-3:00 – Pesticide Applicator Training, Spooner – contact Kevin Schoessow 715-635-3506 – other sites are Balsam Lake (Jan 31) and Barron (Feb 16), contact Tim Jergenson 715-537-6250.

Mar 25, Sat, 9:30-3:30 – NW Graziers Annual Conference, Hayward – LCO College, Watch for details next in newsletter or press releases, contact Otto Wiegand or Kevin Schoessow 715-635-3506

Apr 1, Sat, 9-3 —Spring Garden Expo, Rice Lake – WITC, contact Tim Jergenson 715-537-6250

Apr 21-23, Fri-Sun – Midwest Horse Fair, Madison – Alliant Energy Center, contact info@midwesthorsefair.com, 920-623-5454

New Resources on Field Crop Diseases Available Through the Crop Protection Network

Damon Smith, UW-Extension Field Crops Pathologist
608-262-5716, damon.smith@wisc.edu

Farmers and other agribusiness professionals have another tool to access university research-based information that helps identify and manage field crop diseases. The Crop Protection Network (CPN), composed of state university and provincial Extension specialists, and public/private professionals, produces collaborative Extension outputs on diseases affecting field crops in the United States and Canada.

Currently there are 24 publications on corn and soybean diseases available on the CPN website – **www.CropProtectionNetwork.org** – including a series on how to manage corn ear rots that was released in 2016. The website includes full length publications on important diseases, scouting cards to aid in field-based disease diagnosis, one-page factsheets that address hot topics in field crop diseases, and annual corn disease loss estimates for the United States and Canada.

Publications focus on how to identify and manage diseases, as well as including information on other diseases that can confuse diagnosis. These resources are updated frequently to incorporate the latest research-based information on disease management. The website is also mobile friendly to allow publications to be viewed on the go and in the field. More publications are coming soon, so please check back regularly to see what's new.

The CPN is supported by the United States Department of Agriculture (USDA), the North Central Soybean Research Program (NCSRP), the United Soybean Board (USB), and the Grain Farmers of Ontario (GFO).

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You can now recycle your ag plastics with new program

Do you need to lime your field again?

Improve your management practices to thrive in low-margin years

find us on Facebook **www.facebook.com/spoonerag**

Kevin A. Schoessow

Kevin Schoessow
UWEX Area Agricultural Agent