

Wine-Grower-News #36 *March 28, 2008*

Midwest Grape & Wine Industry Institute: <http://www.extension.iastate.edu/Wine>

Information in this issue includes:

Recent Growth of Iowa's Wine Industry

Murli's Midwest Grape & Wine Industry Institute - March Update

Pruning Grape Vines - Evaluating and Adjusting for Cold Injury

Winter Bud injury Report from ISU Research Vineyards

Mentor Program for Vineyard Pruning – April 5 – North Dubuque, IA

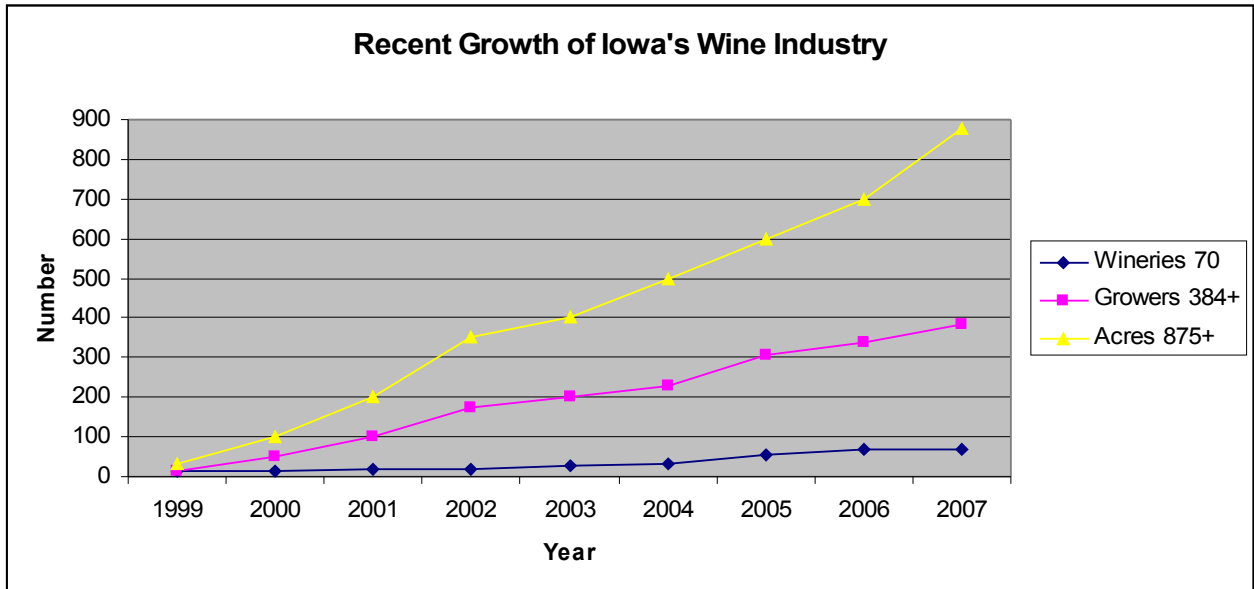
Winegrape Variety vs. Trellis Training System

Virginia Dare - America's First #1 Wine Brand

Quote of the Week

Neeto-Keeno WWW Stuff

John Ernest Vineyard & Winery- Vineyard 101 & Workshop Flyer Attached



a. Number of Iowa licensed wineries from Iowa Alcohol Beverage Division.

b. Number of Iowa vineyards and acres come from ISU Viticulture database

Murli's Midwest Grape & Wine Industry Institute - March Update



You want to know more about the Midwest Grape & Wine Industry Institute? What about the latest Iowa vine/wine industry statistics? What exactly is the Iowa Vintners Quality Alliance (VQA)? How is the new ISU Wine Lab doing? You can answer these and many other questions by viewing Dr. Murli Dharmadhikari's

March, 2008 Midwest Grape & Wine Industry Institute report can be here:
<http://www.extension.iastate.edu/Wine/Resources/midwestgrapeandwineindustryinstitute.htm>

Pruning Grape Vines - Evaluating and Adjusting for Cold Injury

By: Dr. Paul Domoto, ISU Horticulture

Because the cane buds are the least hardy portion of grape vines an important practice is to assess the buds for cold injury before you begin to prune. With this knowledge, you can adjust the number of buds retained to better assure a normal crop. Cold injury to grape buds is relatively easy to distinguish. Using a sharp razor, make a series of cross-sectional cuts across the buds, cutting a little deeper with each slice until the primary bud is exposed. Live buds will appear bright green, while injured buds will appear brown or black in color.

When assessing cold injury, it is important to thoroughly sample the vineyard and handle the canes properly. A proper sample should consist of at least 100 buds collected from each cultivar. A sample of ten 10-bud canes collected over an area representative of the vineyard is usually sufficient. When samples are collected following a significant freezing event, they should be brought indoors and allowed to warm for 24 to 48 hours to make the injured buds easier to see. If samples are collected several weeks after a freeze, following a periods of warmer temperatures, it is not necessary to warm the samples up.

The sampled canes should be representative of the type of wood that will be left on the vines at pruning in terms of the node position on the canes. If you typically prune back to 5 or six node spurs, then you want to collect a sample that is representative of that type of wood. There can be considerable difference in the extent of cold injury from the base to the tip of a cane. So keep track of the position of the buds as you cut and record the damage so you will know what part of the cane has the most damage.

American Cultivars:

For American cultivars in which secondary buds are not very fruitful the following would apply:

% of Dead Primary Buds	Compensation ^z
Less than 15 %	Prune as normal.
15 to 50%	<p>Adjust the pruning formula proportionally to the bud kill. <i>i.e. If you experience a 30% bud kill, you will want to leave 30% more buds than called for by the pruning formula for the cultivar. So if the pruning formula for the cultivar is 30+10 and the vine produce 2 lb of prunings, you would leave 40 + (.30 x 40) = 40+12=52 buds.</i></p> <p>OR</p> <p>Pruning formula x (1 + % bud injury) $(30 \times 1.3) + (10 \times 1.3) = 39 + 13 = 52 \text{ buds.}$ Extra buds retained should make up for the percentage that were killed and should produce enough fruit to keep the vines in balance.</p>
More than 50%	<p>Do not prune, or only prune to eliminate the canes close to the ground or competing with an adjacent vine. Wait until bud break to prune these cultivars so that a more accurate assessment can be made.</p>

^z From: Dami, I, et. al. 2005. **Midwest Grape Production Guide**. Ohio State Univ. Extension Bul. 919

French-American Hybrids:

Many French-American hybrid cultivars have fruitful secondary buds. For these cultivars, the increase in number of buds to retain may not be proportional to the percentage of damaged primary buds. There is not exact formula to determine the number of buds to retain, but in most cases, an adjustment is necessary. An exception would be for those cultivars that require cluster thinning. However, if there is a significant reduction in the size of clusters produced from secondary buds, it may be necessary to retain an average of 1.5 to 2 clusters per shoot.

For cultivars that do not require cluster thinning, you could follow the Cornell model and compensate in proportion to the production loss associated with secondary buds. If the secondary buds are 60% as productive as the primary buds, then there would be a 40 reduction in potential yield and the calculated number of buds to retain would be 40% of the calculated adjustment:

% of Dead Primary Buds	Compensation ^z
Less than 20 %	Do not change normal pruning practice.
20to 80%	<p>Increase the number of buds retained to compensate for a 40% reduction in yield: <i>i.e.</i> If you experience a 50% bud kill, you would normally want to leave 50% more buds than called for by the pruning formula for the cultivar. So if the pruning formula for the cultivar is 20+10 and the vine produce 2 lb of prunings, you would normally leave $30 + (.5 \times 30) = 30+15=45$ buds. Since the potential crop reduction associated with fruiting on secondary buds is 40%, the number of buds to retain would then be $30+.4 \times 15 = 30+6=36$ buds.</p> <p>OR</p> <p>Pruning formula x (1+(.4 yield reduction x % bud injury)) $(20 \times 1 + (.4 \times .5)) + (10 \times 1 + (.4 \times .5)) = (20 \times 1.2) + (10 \times 1.2) = 24 + 12 = 36$ buds.</p> <p>Extra buds retained should make up for the percentage that were killed and should produce enough fruit to keep the vines in balance.</p>
More than 80%	Prune away only those nodes which will intrude into the space of adjacent vines or which will produce fruit so low that it hangs to the ground.

^z Adapted from: Pool, R. 2000. Assessing and responding to winter cold injury of grapevine buds. <http://www.nysaes.cornell.edu/hort/faculty/pool/budcoldinjury/Assessingbudcoldinjury.html>

Winter Bud injury Report from ISU Research Vineyards

By Dr. Paul Domoto, ISU Horticulture

Five proximal (basal) buds on three canes per replication (15 buds) were dissected and examined for winter injury to determine if adjustments in pruning were needed. The following results were found.

Minimum winter temperature (F) and primary bud injury sustained during the 2007/2008 winter for 15 cultivars in the 2002 grape cultivar by management system trial, and 20 cultivars in the 2003 ISU wine grape cultivar trial at the Horticulture Research Station (HRS) and the Armstrong Research Farm (ARF), and 35 cultivars at the Southeast (SERF), & Northeast (NERF) Research Farms.

Min. temp. (Jan. 24, 08): -17F 2F - 13F -23F

Cultivar	Relative	% Primary Bud Injury at			
	Hardiness ^z	HRS	ARF	SERF	NERF
Maréchal Foch	5	14	5	7	46
Frontenac	6	4	5	0	9
Cynthiana	4	44	18	6	80
St. Croix	6	25	13	0	27
Chambourcin	3	91	79	25	98
Seyval Blanc	4	75	54	15	71
La Crosse	5	16	12	2	16
Vignole	4	55	26	5	100
Traminette	4	44	25	10	88
Edelweiss	5	22	15	5	20
Marquis	4	84	51	20	100
Vanessa	4	93	40	15	93
Reliance	4	57	38	8	75
Mars	4	54	28	18	72
Jupiter	4	75	44	12	100
<i>LSD, P< .05</i>		<i>11</i>	<i>14</i>		
GR-7	6	22	15	16	58
Noiret	4	53	22	12	52
NY76.0844.24	4 ?	25	18	0	60
NY84.0101.04	4 ?	53	13	2	87
Corot noir	4	38	15	42	76
La Crescent	6	2	8	3	17
Prairie Star	6	7	2	12	17
Frontenac Gris	6	2	5	.	.
Swenson White	6	9	8	4	51
Brianna	6	12	13	3	28
Marquette	6	7	15	0	17
MN-1198	6	9	3	0	17
Cayuga White	4	95	27	32	85
Chancellor	5	12	8	0	38
De Chaunac	4	46	8	5	73
Esprit	5	25	20	2	33
Landot 4511	4	86	9	8	100
Leon Millot	5	28	10	0	40
St. Vincent	4	40	27	0	96
Vidal Blanc	4	96	33	6	95
<i>LSD, P<.05</i>		<i>18</i>	<i>13</i>	<i>14</i>	<i>18</i>

^z Relative cold hardiness (temperature range at which injury begins to occur): 3 = Cold tender/slightly hardy (-5 F); 4 = Moderately hardy (-10 F); 5 = Hardy (-15 F); 6 = Very Hardy (-20 F).

LSD, P<.05 = Least Significant difference at a 95%+ probability level

Mentor Program for Vineyard Pruning – April 5 – North Dubuque, IA

What: Mentor Program for Vineyard Pruning

When: 9 AM -3 PM, Saturday, April 5th, 2008

Where: Chez Bonet Vineyard - Dubuque, IA 12613 Hwy 52 North Dubuque, IA 52002. (Directions for the vineyard: traveling north from Dubuque on Hwy 52, 9/10 of a mile past Sageville's BP station. Blue sign 12613 and there is a wooden ball on top of the mailbox. (If you pass Whispering Hills, you have gone too far.) Travel up the 1/4 mile driveway and vineyard is beyond the only house at the top. Phone number for contact is 563-543-4306.

Sponsors: Mississippi Valley Grape Growers Association

Comments: Varieties of grapes to be pruned are Leon Melot, LaCross, Bluebell, and Edlewies. The trellis systems in the vineyard are GDC, VSP, and retrofitting double kniffen to GDC. Balance pruning will also be demonstrated.

Please bring your vineyard tools, work gloves, sack lunch, water/coffee/soda, rain gear, sun screen, and extra socks. Safety considerations; sharp tools, possible cold wet spring weather.

MVGGA contact person: Ian Bonnette for mentoring times and additional information at imbbozo@hotmail.com or 563-543-4306.

Winegrape Variety vs. Trellis Training System

There are three primary training systems used in Iowa's winegrape vineyards today. The most common training system is the single high wire (SHW), also referred to as the Hudson River Umbrella, Top Wire Cordon or Bilateral High Wire. This system typically utilizes one horizontal cordon wire placed somewhere between 5.5' to 6' high. A training wire is sometimes run horizontally approximately 30-36" high. This lower wire can be used to tie downward growing canes and/or support a drip irrigation system, and/or tie a training pole to. The SHW costs the least to install and requires the least amount of canopy management

The vertical shoot positioned (VSP) is the second most common training system used in Iowa. It is often referred to as the mid-wire cordon system. The cordon wire is normally placed 40-42" above the ground. A system of 3- single or double catch wires are then placed every 8-12" above the cordon wire. The upward growing canes are tied or tucked inside of these wires.

The Geneva Double Curtain (GDC) is the least common of the three systems being used in Iowa. Instead of a single high wire, it utilizes two cordon wires running horizontally anywhere from 5.5-6.0' high. These two cordon wires are normally placed 36" – 48" apart. A single wire is sometimes placed somewhere between 40"-48" to tie a training pole and/or a drip irrigation system. The GDC was developed in the late 1960's at Cornell University for highly productive and vigorous juice grapes. It provided a system of dividing the canopy and increasing the yield per acre (often by 30-40%) by increasing the number of clusters per foot of trellis row. The GDC is normally the most costly of the three systems due to the horizontal trellis arms on each post. The additional cost can easily be overcome by the increased yield.

American grape canes tend to trail outward and downward as they grow. These varieties are more adapted to the GDC or SHW systems. French vinifera varieties are more adapted to upward cane training systems like the VSP. French/American or American/French hybrids take on characteristics

of their parents. These can range from Trailing to Semi-Trailing to Semi-Upright to Upright. There can be a fine line between Semi-Trailing and Semi-Upright and experts will often differ in their classification of varieties. It is not a perfect world!

Many vineyard operators have chosen the SHW as their system of choice because of the cheaper initial trellis cost and ease of management. I will not argue with this reasoning. But, matching the variety and site productivity to the correct training system will increase the potential of greater yields and higher quality. This is VERY important in the long run.

That said, I have taken the liberty to make a list of common winegrape varieties we are growing in Iowa and my opinion (derived from many sources) of what training system they are most adapted to. The preferred system is listed first followed in order of other training systems that could be easily adapted. Note that you can force any variety to grow on any training system. It just takes work!

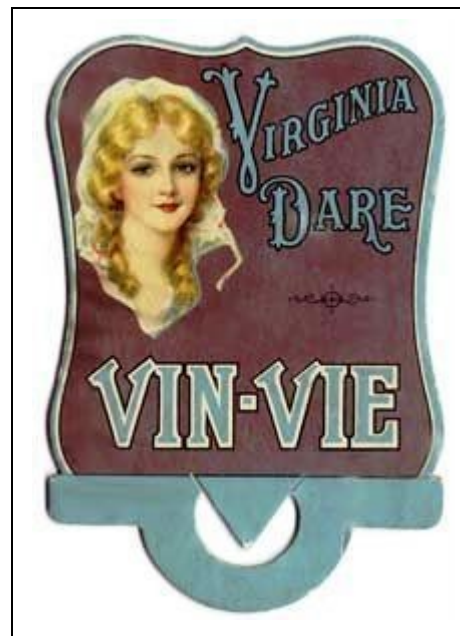
Grape Variety	Type	Vigor	Growth Habit	Suggested Training System
Bluebell	Univ. Mn labrusca	Good	Trailing	GDC, SHW
Brianna	Swenson hybrid	High	Trailing	GDC, SHW
Chardonel	Cornell Hybrid	High	Semi Upright	VSP, SHW
Catawba	labrusca native	Moderate	Trailing	GDC, SHW
Cayuga White	Cornell Hybrid	High	Semi Trailing	VSP, GDC, SHW
Chambourcin	French/American	Moderate	Semi Upright	VSP, SHW
Chancellor	French/American	Moderate	Semi Upright	VSP, SHW
Concord	labrusca native	High	Trailing	GDC, SHW
Corot noir	Cornell Hybrid	High	Semi Trailing	GDC, VSP, SHW
DeChaunac	French/American	High	Semi Upright	VSP, SHW
Delaware	labrusca native	Low	Trailing	GDC,SHW
Edelweiss	Swenson Hybrid	High	Trailing	GDC, SHW
Elvira	MO Amerian Hybrid	High	Semi Trailing	GDC, SHW
Esprit	Swenson Hybrid	High	Semi Trailing	GDC, VSP, SHW
Frontenac	Univ. MN Hybrid	High	Semi Trailing	VSP, GDC, SHW
Frontenac Gris	Univ. MN Hybrid	High	Semi Trailing	VSP, GDC, SHW
GR-7	Cornell Hybrid	High	Trailing	GDC,SHW
Kay Gray	Swenson Hybrid	High	Trailing	GDC, SHW
LaCrescent	Univ. MN Hybrid	Moderate	Semi Trailing	VSP, SHW
LaCrosse	Swenson Hybrid	High	Semi Upright	VSP, GDC, SHW
Leon Millot	French/American	High	Trailing	GDC, SHW
Louise Swenson	Swenson Hybrid	Moderate	Semi Trailing	SHW
Marechal Foch	French/American	Moderate	Semi Trailing	SHW, VSP, GDC
Marquette	Univ. MN Hybrid	Moderate	Semi Upright	VSP, SHW
Noiret	Cornell Hybrid	High	Semi Trailing	GDC, SHW, VSP
Norton/Cynthiana	aestivalis native	High	Trailing	GDC
Niagara	labrusca native	High	Trailing	GDC, SHW
Prairie Star	Swenson Hybrid	High	Semi Upright	VSP, SHW
Reliance	Univ. Arkansas Hybrid	Moderate	Trailing	SHW
Sabrevois	Swenson Hybrid	High	Semi Upright	VSP, GDC
Seyval Blanc	French/American	High	Semi Upright	VSP
Steuben	labrusca native	High	Trailing	GDC,SHW
St. Croix	Swenson Hybrid	High	Semi Trailing	GDC, SHW
St Pepin	Swenson Hybrid	Moderate	Semi Trailing	VSP, SHW
St Vincent	American/French	Moderate	Semi Upright	VSP, SHW
Swenson Red	Swenson Hybrid	High	Trailing	GDC, SHW

Swenson White	Swenson Hybrid	High	Semi-Trailing	GDC, SHW
Traminette	Cornell Hybrid	Moderate	Semi Upright	VSP
Valvin Muscat	Cornell Hybrid	Low	Trailing	SHW
Vidal Blanc	French/American	Good	Upright	VSP
Valiant	SD State labrusca	High	Trailing	GDC, SHW
Vignoles	French/American	Moderate	Upright	VSP

Virginia Dare - America's First #1 Wine Brand

The article I wrote last week about the giant Muscadine "Mother Vine" on Roanoke Island reminded me of an article I wrote about Virginia Dare for the Western Iowa Grape Growers newsletter last summer. It is a good story!

The Garrett & Company wine making and marketing company was founded in 1835 in New York. The Garret family was operating 5 wineries in North Carolina up until 1907 when prohibitionists turned North Carolina into a dry state. Most of the their wines were composed of the "Scuppernong" Muscadine grape *Vitis rotundifolia* known for its sweet white and aromatic wine. Pocahantas, Minnehaha, and Virginia Dare were a few of their wine names a the time of the move. Virginia Dare became the leading wine brand in the U.S. after the Civil War up until prohibition in 1919 primarily due to the leadership of Captain Paul Garrett. There was a Virginia Dare white and red. Captain Garret blended Concord grape juice and a few California wines into a Scuppernong base to create the two wines. The Virginia Dare Sweet White received the grand prize at the Louisiana Purchase Exhibition in 1904.



Virginia Dare Logo

The wine was named after Virginia Dare, born August 18th, 1587 in Roanoke Colony. She was the first English born child in the Americas. Her parents were Eleanor and Ananias Dare. Eleanor was the daughter of the Roanoke Colony governor John White. After leaving to gather more supplies in England, John White and Sir Walter Raleigh came back to Roanoke Colony in 1590 to find everyone gone. To this day, no one knows what happened to these people. Legend tells us that the tall and blonde Virginia Dare ended up living with the native Indians and became revered for her innocence, purity and strength. (Virginia Dare Brand). After ignoring the local medicine man's advances, Virginia Dare was taken to Roanoke Island where she was turned into a snow white deer. The medicine man then organized a hunting party to kill this deer. After being hit by an arrow, the deer's last words were "Virginia Dare". (NOW THAT IS A STORY!)

The Rest of the Story: The Garret & Company owned 17 different wine and juice operations producing over 10,000 gallons/year in NC, VA, OH, MO, NY at the time of prohibition in 1919. Captain Garrett tried to bounce back from prohibition by producing grape juice, a grape cola called Satenet, a wine tonic and a grape concentrate used by hobby winemakers. They even sold a dealcoholized wine. The high grade clear alcohol from this process ended up starting "Virginia Dare Extract Company n 1923. This company still exists and can be found here:

<http://www.virginiadare.com>. After prohibition in 1933, Captain Garrett brought back Virginia Dare Wine but the brand faded after he died at the age of 76 from pneumonia on March 16, 1940. In 1965 the brand name was purchased in a royalty arrangement by Constellation Brands. Today, it is owned by their Canandaigua Wine Company division and is not being used.

Do a Google Search of "Virginia Dare Wine" and you will enjoy more of the history of America's First #1 Wine Brand.

PS: The #1 U.S. wine brand name today is "Gallo Family Vineyards" according to a wine brand survey conducted by brand consultant - Intangible Business.

Quote of the Week

Since the U.S. Supreme Court ruled on direct shipping in May 2005, (Granholm Vs Heald) winery-to-consumer shipping has become legal in 35 states, which collectively represents 81% of wine consumption in the U.S. - 3-24-08 Free The Grapes: <http://www.freethegrapes.org/>

Free the Grapes! is a national consumer-winery grassroots coalition of more than 300,000 members and supports legal, regulated direct-to-consumer wine shipments.

Neeto-Keeno WWW Stuff

1. Central Coast Vineyard Team.org Resource Library:
http://www.vineyardteam.org/resources/library_viticulture.php
2. Online Alcohol Serving Certification: <http://www.learn2serve.com/>

Past issues archived as html: <http://www.extension.iastate.edu/Wine/Resources/winegrowernews.htm>
Past issues archived as pdf: <http://www.extension.iastate.edu/ag/newsletters/winegrowers.html>

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3-20-08

What: Vineyard 101 & Pruning Workshop

When: 9 AM to Noon, Saturday, **April 5th**, 2008 (Rain/Shine/Snow)

Where: John Ernest Vineyard & Winery, (3 mi. east of Tama on Hwy 30, then 1/4 mi. north.)(641-484-8048) Look for new sign on north side Hwy 30: <http://www.johnernestvineyard.com/>

Who: Mike White, ISU Extension Viticulture Specialist will be the instructor.
Co-sponsored by John Ernest Vineyard & Winery & ISU Tama County Extension.

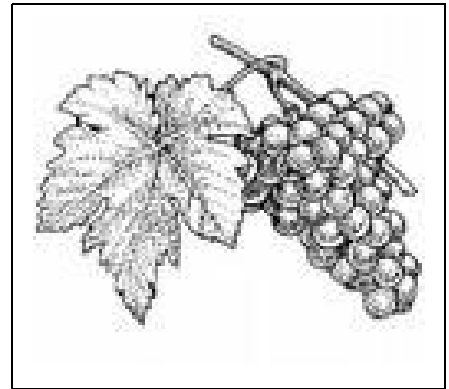
Pre-Registration Requested: Please contact the ISU Tama Co. Extension office before **noon, Friday, April 4th**, 2008. Payment will be taken at the door.

Contact: (641-484-2703) or <bmurty@iastate.edu>

Maximum attendance = 40.

Cost: \$15 per person, pay at the door.

Agenda: 8:30 AM Registration
9:00 AM Welcome & Introductions
9:15 AM Iowa Vineyard 101 – Quick Review
Cultivar Selection
10:15 AM Break
10:35 Pruning & Canopy Mgt. 101
11:30 AM Hands-on Pruning Demonstration
(bring your own pruners if you have them)
12:30 PM Adjourn - John Ernest Winery Open for Business



Note: John Ernest Vineyard & Winery and vineyard is located on a south facing slope just north of Hwy 30, 3 miles east of Tama overlooking the scenic Iowa River valley. The winery and vineyard are the result of John & Delores Kopsa and their extended family working hard to develop a dream. Come enjoy touring this beautiful winery and scenic vineyard. <http://www.johnernestvineyard.com/>



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