



# VersaLime

2011 Your Way To Grow



American  
Crystal  
Sugar  
Company



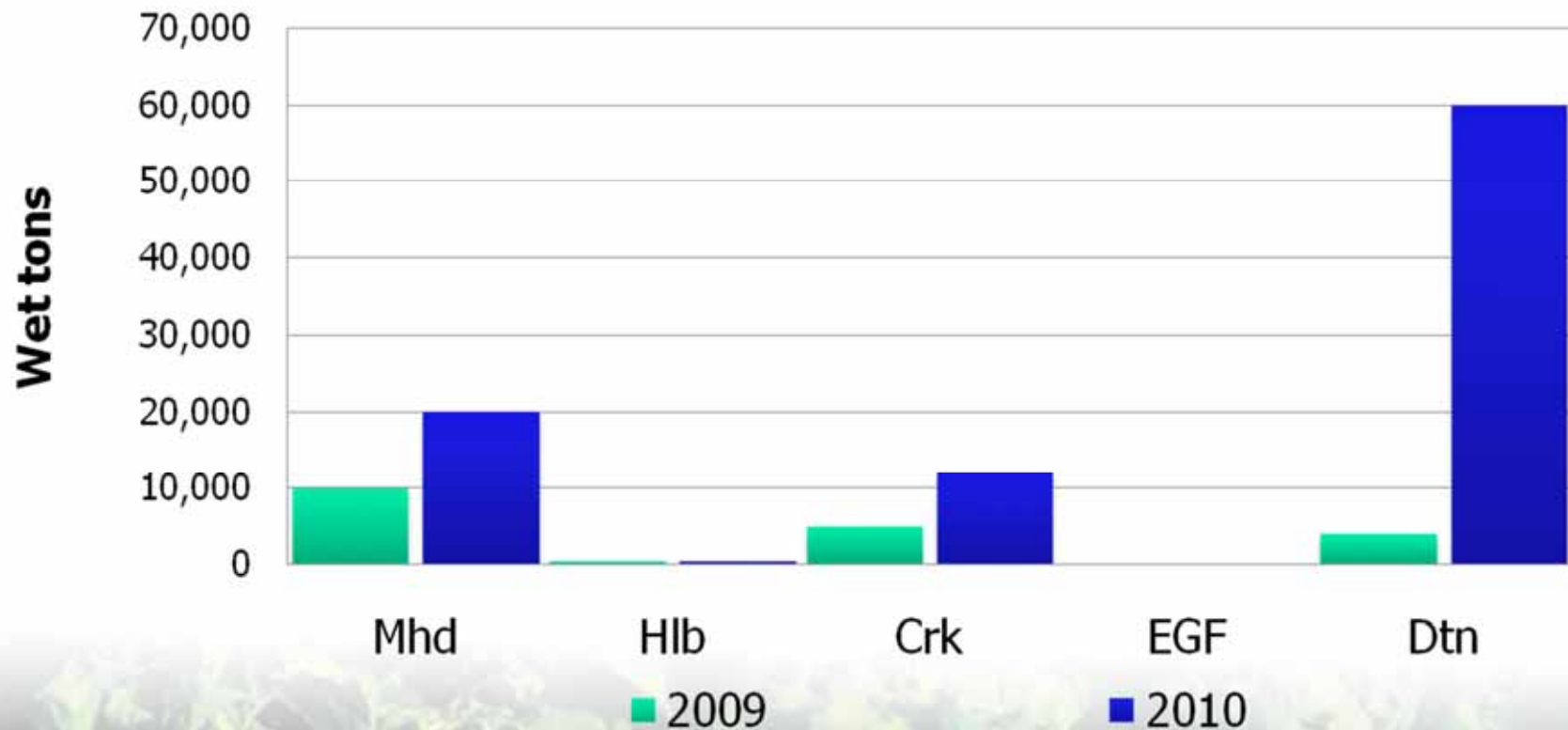
# Agenda

- VersaLime
  - Beneficial Use 2010
  - Roles and Responsibilities
- 2011 VersaLime Web Site [www.crystalsugar.com](http://www.crystalsugar.com)
- 2010 Lessons Learned
- Q & A



# 2010 Beneficial Use

## Versalime Use by Location





# VersaLime Responsibilities

- Agriculturalist
  - Agronomic Recommendations to Growers
  - VersaLime Demand Estimate
- Factory
  - Required Forms
  - Coordinate VersaLime Load-out
- Business Development / Crp
  - Program Coordination and Changes
    - Land app, website mgmt, nutrient analysis, permits, etc.



# VersaLime Web Site

- ACSC Internet Website
  - Products and Processing
    - VersaLime
      - All Information In One Location
      - Continually Updated
      - Responsibilities, Forms, Procedures, Data and Research
      - Updates Managed Through One Point “Consistency”



American Crystal Sugar Company - Windows Internet Explorer

http://192.168.100.22/Default.aspx

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American Crystal Sugar Company Page Safety Tools

# Growing Beets. Making Sugar. Tasting Sweet.

Employee Email Login



**American Crystal Sugar Company**

**Growing Beets.**  
Progressive on-farm production methods coupled with the fertile soil of the Red River Valley make sugarbeets a leading regional crop.



Sugarbeet Agronomy	Cooperative Profile	Products & Processing	Members Only
<ul style="list-style-type: none"> <li>• Gold Standards</li> <li>• Ag Notes</li> <li>• Ag Tools</li> <li>• Beet Seed</li> <li>• Classifieds</li> <li>• Resources</li> </ul>	<ul style="list-style-type: none"> <li>• Annual Reports</li> <li>• Economics</li> <li>• Facilities</li> <li>• History</li> <li>• Joint Ventures</li> <li>• Sugar Facts</li> </ul>	<ul style="list-style-type: none"> <li>• Agri Products</li> <li>• Industrial</li> <li>• Recipes</li> <li>• Retail</li> <li>• Sugar Distribution</li> <li>• VersaLime</li> </ul>	<ul style="list-style-type: none"> <li>• Shareholder Records</li> <li>• Sugar Reports</li> <li>• Accessing Tips</li> <li>• Request Password</li> </ul>

Employment | Media & Environmental | Links | Talk to Us | Search | Company Store

**What's New:**

- [The 41st Annual Research Reporting Session](#)

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Shareholder Access Local Intranet 100%

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American Crystal Sugar Company

Sugarbeet Agronomy Cooperative Profile **Products & Processing** Members Only



**Products & Processing**

- Agri-Products
- Industrial
- Recipes
- Retail
- Sugar Process
- VersaLime**

**We Won't Charge You A Dime To Get The Benefits Of VersaLime.**

**What is VersaLime?**

VersaLime is the same lime we have offered to area growers for years. This byproduct of beet sugar purification is proven to help control Aphanomyces root rot and provides other benefits, such as adding valuable nutrients, raising soil pH and improving soil structure.

**Effective VersaLime application**

- Apply 7 - 10 tons per acre
- Apply 1 year before sugarbeets
- Spread as evenly as possible
- Thoroughly incorporate with tillage

**Our by-product is your benefit**

American Crystal's five Red River Valley factories produce 350,000 tons of lime each year. And it's available to you for NO CHARGE.

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VersaLime

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**VersaLime Locations**

- [Crookston](#)
- [Drayton](#)
- [East Grand Forks](#)
- [Hillsboro](#)
- [Moorhead](#)

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**Additional Information**

**Required Form**

- [Lime Removal Agreement](#)

**Lime Benefits/ Research**

- [Ag Notes 527](#)
- [Ag Lime Fact Sheet](#)
- [A Case For The Use Of Limestone In North Dakota](#)
- [Impact of Lime on Soil Physical Properties](#)
- [Five-Year Effect of a Single Application of Factory Waste Lime on Aphanomyces Root Rot and Sugarbeet](#)
- [North Dakota State University and University of Minnesota Research on Effects of Lime on Crop Yields](#)
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- [Lime Rate Effects on Sugarbeet, Wheat and Soybean Yields Larry Smith, UM](#)

**Product Analysis**

- [VersaLime Nutrient Summary](#)
- [Ag Lime Stockpile Analysis](#)
- [Ag Lime Stockpile Analysis - Drayton](#)

**Hauling/ Spreading Services**

- [2010 Lime Spreading Service Providers](#)
- [2010 Lime Hauling Service Providers](#)

**Environmental Considerations**

- [Guidelines for Land Application of By-Product Limes](#)

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# VersaLime Procedures

- Required Forms
  - Factory Specific Instructions
    - Contacts
    - Load-out Locations
    - Times
  - VersaLime Agreement
  - Site Suitability Checklist
- Environmental regulation

Moorhead - VersaLime - Windows Internet Explorer

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Moorhead - VersaLime

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American Crystal Sugar Company

Sugarbeet Agronomy Cooperative Profile **Products & Processing** Members Only



**Products & Processing**

- Agri-Products
- Industrial
- Recipes
- Retail
- Sugar Process
- VersaLime**

### Moorhead - VersaLime

#### Contact Info

Dennis Burthwick: Office:(218) 291-5428  
Cell: (701) 238-2613

Linda Nordgaard : (218) 291-5401

#### Pickup Maps

- Map 1
- Map 2

[Moorhead VersaLime Give Away Instructions](#)

[MSDS](#)

#### Required Forms

- Lime Removal Agreement
- Site Suitability Checklist

#### Product Analysis

- Aq Lime Stockpile Analysis

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# Factory Giveaway Instructions

## ACSC Procedure to Acquire Versalime from Moorhead Site

### Growers/Haulers will need to do the following:

1. Contact one of the following staff members at the Moorhead Factory at least 24 hours before expected receipt of the first load:  
**Dennis Burthwick: (218) 291-5428 or cell (701)238-2613**  
**Linda Nordgaard: (218) 291-5401**
2. Complete a copy of the **Lime Removal Agreement (required)** once a year. Complete **Versalime Site Suitability Checklist (required)** for each location lime will be applied. Forms may be obtained from the Factory Contacts (above) or online at:  
[www.crystalsugar.com/products/versalime.aspx](http://www.crystalsugar.com/products/versalime.aspx)
3. For the Versalime Site Suitability Checklist, fill in all information.

**Steps 1 through 3 will need to be completed and documents turned in to Factory Contact prior to picking up the first load.**

### Agriculturalist Instructions:

1. Answer questions pertaining to application rates and agronomic benefits  
[www.crystalsugar.com/products/versalime.aspx](http://www.crystalsugar.com/products/versalime.aspx)
2. Refer interested growers to Factory contacts listed above for all anticipated lime receipts.

### Truck Driver Instructions:

1. Factory loading hours run from 7:00 a.m. to 5:00 p.m. year round. Factory contact(s) need to be **notified 24 hours prior** to receipt of any loading activity (required to make

# VersaLime Agreement

## LIME REMOVAL AGREEMENT

THIS AGREEMENT is entered into effective as of \_\_\_\_\_, 2010, by and between American Crystal Sugar Company, a Minnesota cooperative corporation ("ACSC"), and \_\_\_\_\_ ("Contractor").

WHEREAS, ACSC is in the business of processing sugarbeets into sugar, and in connection therewith, has spent lime ("Lime") available for use by third parties;

WHEREAS, Contractor is willing to remove, at no expense to ACSC, an agreed upon quantity of the Lime and land apply (or contract for the application) the Lime as a soil conditioner.

WHEREAS, the parties hereto desire to enter into a contract for the removal and use of Lime.

NOW, THEREFORE, in consideration of the foregoing, and the mutual covenants and conditions set forth herein, ACSC and Contractor agree as follows:

1) **Removal of Lime.**

- (a) ACSC grants Contractor the right to remove Lime in amounts to be mutually agreed upon at no cost to either Contractor or ACSC from the \_\_\_\_\_ Factory (the "Factory"). The removal of the Lime by Contractor shall be referred to as the "Removal". Removal shall occur at such times and in such amounts as are mutually agreed upon, subject to the following schedule:

**[insert quantity and monthly schedule].**

- (b) ACSC will load the Lime into Contractor's trucks. Contractor shall be responsible for clean-up and removal of any Lime which may spill during transport, and in the event of such a spill the Contractor agrees that he or she will immediately notify the Factory and the ACSC Regulatory Affairs Department. Contractor shall be responsible for undertaking and completing any required road repair resulting from Contractor's removal activities.
- (c) Contractor agrees to operate in a professional manner while removing the Lime and agrees to follow any guidelines and safety and security requirements that may be established by ACSC with regard to activities occurring on ACSC property.

# Site Suitability Checklist



VersaLime

## SITE SUITABILITY CHECKLIST AMERICAN CRYSTAL SUGAR COMPANY

Owner of Site: (please print) \_\_\_\_\_ Date: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone Number: ( ) \_\_\_\_\_ Is The Lime being added for pH control: Yes:  No:

If VersaLime is **not** being used for pH control, **one** composite soil sample must accompany this form prior to lime receipt. Additional samples will be required if field is greater than 160 acres.

Does the site meet the suitability criteria below: Yes:  No:

Storage should not occur in areas with greater than two percent slope.
Storage sites should not be located on areas subject to flooding.
Storage will not take place in or near any wetland areas.
Storage (up to 7 months) will be on Lake Agassiz clay soils.
Low soil berm will be provided around stockpile to prevent surface water run-on or run-off.
Stockpile will have no more than an individual farmer can use.
Lime will be applied and incorporated by November 15 <sup>th</sup> and any unused lime will be returned to ACS for proper disposal.

Site Location (County): \_\_\_\_\_ Site Location (Township): \_\_\_\_\_

Site Location (Range): \_\_\_\_\_ Site Location (Section): \_\_\_\_\_

Site Location (Quarter): \_\_\_\_\_ Acres: \_\_\_\_\_

Agronomic Application Rate (tons- as received per acre): \_\_\_\_\_

Tons of Lime Required for Site Location (Acres multiplied by Agronomic Rate): \_\_\_\_\_

Lime Hauled by: \_\_\_\_\_

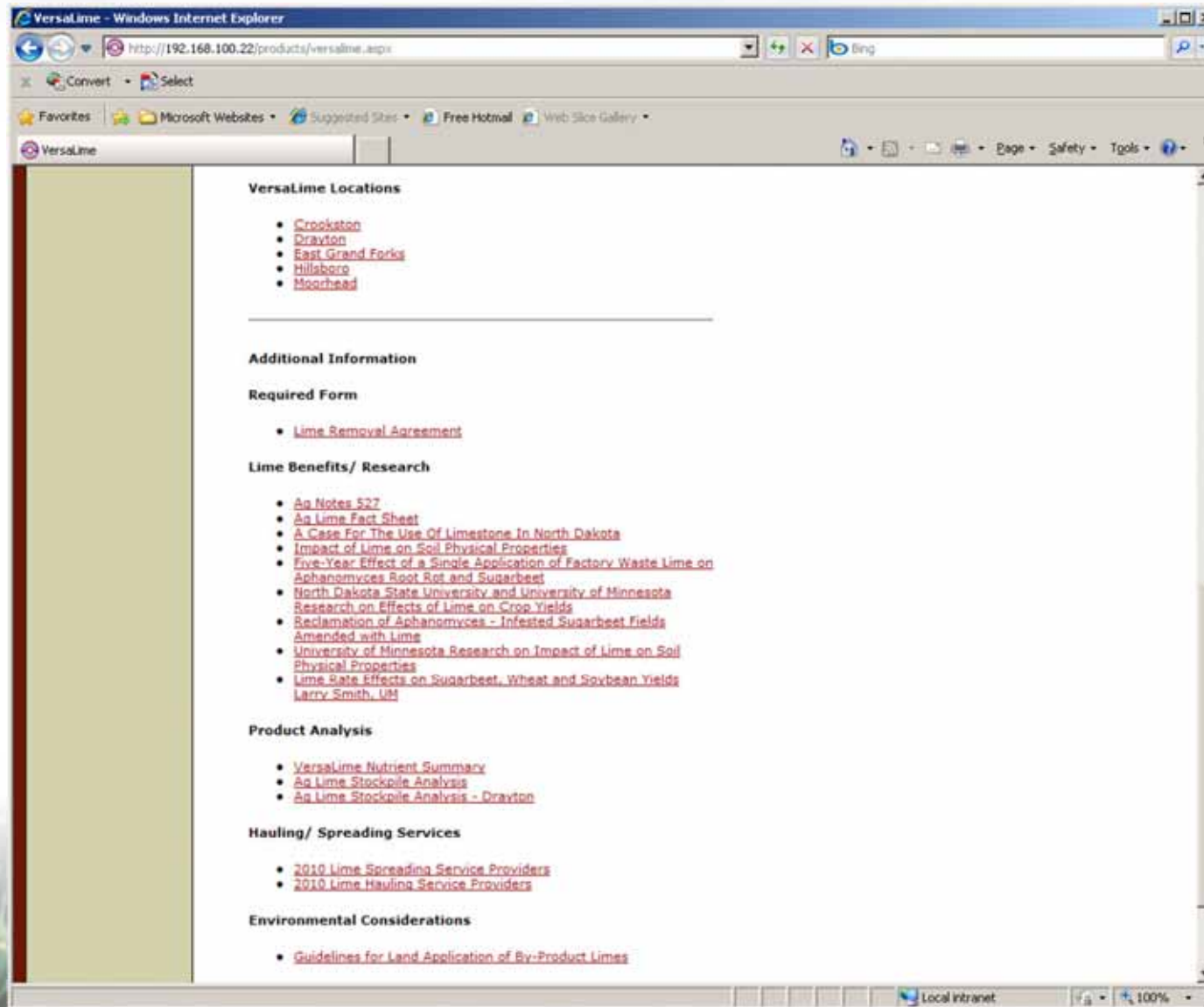


# VersaLime Research

- Research Includes
  - ACSC Ag Notes
  - ACSC Ag Lime Fact Sheets
  - University Research Studies
  - Product Analysis & Nutrient Summary
  - Rotational Crop Studies  
(Wheat/Soybean/Canola)



# VersaLime Research



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# VersaLime

- 2010 Lessons Learned
  - Procedures & Paperwork
  - Hauling – Truck Tarping Required
  - VersaLime Availability vs. Demand
  - Contract Haulers and Spreaders



Any Questions



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Crystal  
Sugar  
Company