

## Minnesota Certified DDGS Program

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## What is the Minnesota Certified Program?

- Minnesota Certified - a program developed jointly by the U of M and MDA.
  - Minnesota Certified Board reviews the ethics and proposed standards submitted by agricultural producer groups.
  - Minnesota Department of Agriculture
    - conducts external audits of farms
    - provides third party certification of audited, within plant production procedures based upon ISO 9000/HAACP principles

## Principles of the Minnesota Certified Program

- Standards are set at or above mandatory requirements and current industry levels
- Standards are defined as SOP's in Quality Handbooks
- Compliance with the standards needs to be recorded
- Standards need to be internally audited on a regular basis (auditing check lists)
- Third-party certification is dependent on compliance (records and on-site inspections)

## Auditing and Certification of Minnesota Certified Ethanol Plants

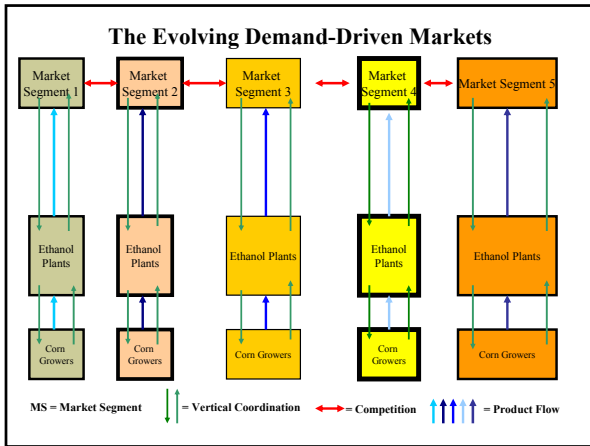
- **Internal audits** of every MN Certified ethanol plant is conducted by accredited auditors once/month for SOP's involving the claims being made.
- **Third-party certification** of MN Certified ethanol plants by MDA once/year
- **ISO-9000 training** and official accreditation of the internal and external auditors

## Characteristics of the Minnesota Certified Program

- Accountability and liability
  - production of primary products for the food chain
- Product identity and traceability
  - producer-buyer relationship
  - quality and safety assurance
- Written documents
  - SOP's described in Quality Handbook
- Records, Audits, and Certification
- Partnership with other members of the chain
  - goal is long-term market access and added value

## Why Was the Minnesota Certified Program Developed?

- Agriculture is evolving from generic commodity production into customized production for differentiated markets.
- Credibility of claims is essential.
- Need standardized best management practices and quality standards to maintain existing markets and acquire new markets.
- Need to be proactive not reactive.



## Why Develop a Minnesota Certified DDGS Program?

A growing supply of DDGS needs a growing market

- Maintain existing markets
- Expand DDGS usage into new or underdeveloped markets (e.g. swine, poultry) that have concerns about:
  - nutrient digestibility
  - quality and consistency of product
  - mycotoxin contamination
- Be in a position to compete with other DDGS sources in the export market
- Increase visibility of high quality DDGS from new Midwest ethanol plants

## Why Develop a Minnesota Certified DDGS Program?

- Need to differentiate high quality DDGS from other sources that are not as well suited for swine and poultry feeding
  - U of M research - DDGS produced from “new generation” ethanol plants is higher quality and well suited for swine and poultry diets
- Need a CREDIBLE process to define and provide THIRD PARTY CERTIFICATION of specific:
  - physical characteristics
    - bulk density
    - particle size
    - color
  - nutrient composition
    - moisture, crude protein, crude fat, crude fiber
  - production processes
    - e.g. mycotoxin screening of corn

## DDGS Marketing Using a “Pull-through” Approach

- Ask prospective customers to define the quality they want
  - explore various markets
  - identify partners in the market
  - define the quality and the quantity of what they think they can produce to meet the consumers’ desires
  - the product is a well-defined “designer” product that cannot be easily replaced

## Mission of the Minnesota Certified DDGS Ethanol Plants

To provide the market with superior, consistent quality distiller’s dried grains with solubles having nutritional properties specifically targeted toward meeting the high nutritional standards for swine and poultry diets, but also surpasses the nutritional quality desired in beef and dairy rations,

**produced by Minnesota ethanol plants,**

guaranteeing defined nutritional and physical characteristics, and minimized risk of mycotoxins and food-borne pathogens through standardized, audited and

**certified production procedures.**

## Who is Involved in the Minnesota Certified DDGS Program?

- DDGS Certification Committee
- University of Minnesota
- Minnesota Department of Agriculture
- Minnesota Ethanol Plants
- Minnesota Corn Growers Association

## DDGS Certification Committee

- Corn growers and Board Members of MCGA
- Minnesota Corn Growers Association Administrative Staff
- MN and SD ethanol plant representatives
- Advisory members
  - Ralph Groschen (MDA)
  - Dr. Jerry Shurson (U of M)
  - John Gohl (Agri-Nutrition Services)
  - Dr. Harold Tilstra (Land O'Lakes/Farmland Feeds)

## Function of the DDGS Certification Committee

- Serve as the coordinating committee for development and implementation of the program
  - Appoint/elect/hire a person to serve as a contact and oversee to day-to-day operations of the program
  - Hire individual(s) to conduct internal audits of participating plants
  - Develop plans for promoting and marketing the program to new and existing domestic and export markets

## Role of the University of Minnesota

- Develop the DDGS Quality Handbook
- Provide temporary internal auditors until a designated internal auditor is hired and trained
- Training internal auditor(s)
- Develop the internal auditing checklist
- Provide education to the international feed industry and livestock producers regarding DDGS and the certification program
- Provide technical assistance for monitoring and defining quality standards
- Assist ethanol plants to comply with the quality standards

## Role of the Minnesota Department of Agriculture

- Approves the claims and quality standards in the Quality Handbook
- Provides external audits
  - review internal audits for compliance
  - provide "third-party" certification of ethanol plants
- Provides official certificates of certification to Minnesota Certified ethanol plants
- Authorizes and manages the use of the Minnesota Certified label
- Works with other governmental groups to certify ethanol plants in other states

## Who Can Participate?

- Minnesota Ethanol plants
  - All "new generation" MN ethanol plants are encouraged to participate and are eligible for certification
  - The Minnesota Certified DDGS program is VOLUNTARY and is NOT REGULATORY
  - All participating plants must comply with the DDGS Quality Standards described in the Quality Handbook and be audited monthly to be eligible for certification
    - Standards are defined by the CUSTOMER (livestock nutritionists and ingredient buyers) NOT by the ethanol plants

## How Does the Minnesota Certified DDGS Program Work?

- Develop a DDGS Quality Handbook
  - Defines specifications and quality control in DDGS production to meet the needs of the target markets
- Plants are audited monthly
  - Performed by an ISO trained internal auditor to ensure compliance with standards (claims)
- Plants become eligible for certification by external auditor (MDA) after 3 months of internal audits
- Certified ethanol plants
  - receive a certificate of certification from the State of Minnesota
  - may use the Minnesota Certified logo as a quality seal in marketing



## Minnesota Certified DDGS Program

- What are the quality standards?
  - Nutrient content
    - Moisture (dry matter)
    - Minimum crude protein
    - Minimum crude fat
    - Maximum crude fiber
  - Random screening process for mycotoxins in corn
  - Physical characteristics
    - bulk density
    - particle size
    - flowability
    - color
  - Food safety
    - Salmonella reduction procedures
    - No drug residues "Letter of Guarantee"

## Minnesota Certified DDGS Program

- Estimated cost of the Minnesota Certified DDGS Program?
  - \$500 annual membership fee/plant
  - \$250 monthly internal auditing cost/plant
  - \$750 monthly quality control monitoring cost/plant
  - Additional costs to get participating plants in compliance with standards?
  - Additional cost/ton of DDGS produced
    - - \$0.10 to 0.20/ton DDGS



## Minnesota Certified DDGS Quality Handbook Table of Contents

- Mission of Minnesota Certified DDGS Ethanol Plants
- History of the Minnesota Certified DDGS Program
- Description of the Minnesota Certified DDGS Ethanol Plants
- Quality Policy of the Minnesota Certified Ethanol Plants
- Certified Quality Claims of Minnesota Certified DDGS
  - **Physical Properties and Nutritional Specifications of Minnesota Certified Distiller's Dried Grains with Solubles**

## Minnesota Certified DDGS Quality Handbook Table of Contents

- Recommended Quality Standards for Minnesota Certified DDGS
  - A. Best Production Procedures
    - 1. Biosecurity
      - 1.1. External Biosecurity
        - 1.1.1. Employee and visitor accessibility to Minnesota Certified ethanol plants
        - 1.1.2. Corn supply
        - 1.1.3. Bird proofing
        - 1.1.4. Rodent control
        - 1.1.5. Insect control
      - 1.2. Internal Biosecurity
        - 1.2.1. General sanitation
        - 1.2.2. Personnel

## Minnesota Certified DDGS Quality Handbook Table of Contents

- 2. Routine Production Practices
  - 2.1 DDGS Production
    - 2.1.1. Corn quality
    - 2.1.2. Nutrient content of DDGS
    - 2.1.3. Mycotoxin screening
    - 2.1.4. Grinding and particle size
    - 2.1.5. Quality control
    - 2.1.6. Bulk density
    - 2.1.7. DDGS flowability
    - 2.1.8. Feed spills
    - 2.1.9. Corn and DDGS storage

## Minnesota Certified DDGS Quality Handbook Table of Contents

- C. Food Safety
  - 1. Aflatoxin screening
  - 2. Sanitation to reduce bacterial contamination (*Salmonella spp.*)
  - 3. Antibiotic residues
- D. Environmental Stewardship & Community Relations
  - 1. Compliance with environmental regulations
  - 2. Verification/documentation
  - 3. Community Relations
    - 3.1 Plant tours
    - 3.2 Other

## Minnesota Certified DDGS Quality Handbook Table of Contents

- E. Records and Record Keeping
- F. Minnesota Certified DDGS Approved Analytical Laboratory
- G. List of Approved Enzymes, Yeasts, and Chemical Additives

