the energy of innovation™

Welcome to the DGTC 2021 Symposium

Jackie Lissolo

Our Mission Serves The Environment

Provide innovative solutions that sustain agriculture.

Develop feed technologies that increase the world's protein supply.

Advance renewable energy.

2021 DGTC Symposium Welcome

- Back in Person!
- TAKING IT BACK TO WHERE IT BEGAN…
- 25TH Anniversary

2021 DGTC Symposium Welcome

- Diverse backgrounds
  - Beverage/Fuel/Marketing
- Common Interest
  - Distillers Feed Products
- Coming together

Collaboration

- Learning Opportunities
  - Issues/Innovations
- Value-Added
  - Feed/Industry
- Better Together

Collaboration within DGTC

- 2020
  - Ingredient Definition Workgroup, Webinar Series
- 2021
  - Regulatory, Marketing, LPP Committees
- 2022
  - Enhanced Products, Sustainability

Distillers & Biorefinery Products - February 2021

Dried Distillers Grain Products

Industry Name	Common Analysis (As Fed) %Protein	%Fat	% Crude Fiber	Current AAFCO Definition	General Description
DDGS	23-36	3-9	<14	27.6, 27.8	Distillers grains with condensed distillers solubles with a portion of oil removed. Can be in dry or wet form (dry form common analysis displayed).
Full Fat DDGS	21-34	8-12	<14	27.6, 27.8	Distillers grains with condensed distillers solubles. No oil has been removed. Can be in dry or wet form (dry form common analysis displayed).
Deoiled DDGS	26-36	<3	<14	27.9	Solvent extracted DDGS.
DDGS with Bran	23-36	3-16	<14	27.6, 27.8, 48.2	DDGS mixed with bran separated by plant prior to fermentation. Can be in dry or wet form (dry form common analysis displayed).
DDGS Mechanically Separated	24-48	3-8	<14	27.5, 27.4	Post distillation residual whole stillage resulting from the mechanical separation of fiber and protein. Contains condensed distillers solubles.
DDG	24-35	4-8	<14	27.5	Distillers grain. May have a portion of oil removed. Does not contain condensed distillers solubles.
HiPro DDG	36-48	4-6	<12	27.5	Distillers grain. Portion of fiber and oil removed which concentrates protein. Does not contain condensed distillers solubles.

Other Distillers Products

Industry Name	Common Analysis (As Fed) %Protein	%Fat	% Crude Fiber	Current AAFCO Definition	General Description
Syrup (CDS)	5-25	3-23	0-4	27.7	Condensed thin stillage.
Distillers Yeast	40-55	0-8	0-6	96.5	Inactive *Saccharomyces cerevisiae* yeast removed from the process stream after fermentation either before or after distillation.
	%Total Fatty Acids	%Unsaponifiable Matter	%Insoluble Impurities		
Distillers Oil	>85	<2.5	<1	33.10	Oil removed by centrifugation from the condensed distillers solubles stream or by solvent extraction of DDGS.

High Fiber Distillers Products

Industry Name	Common Analysis (As Fed) %Protein	%Fat	% Crude Fiber	Current AAFCO Definition	General Description
Bran/Fiber with Syrup	18-28	4-9	15-20	48.2, 27.7	Bran separated by plant prior to fermentation mixed with condensed distillers solubles. Can be in dry or wet form (dry form common analysis displayed).
Fermented Fiber Mechanically Separated	<24	2-7	10-20	27.5, 27.4	Post distillation mechanical separation of the whole stillage resulting in a concentration of fiber. Does not contain distillers solubles unless listed.

Fermented Protein Products

Industry Name	Common Analysis (As Fed) %Protein	%Fat	% Crude Fiber	Current AAFCO Definition	General Description
Fermented Protein	48+	3-8	<8	27.5	Portions of fiber and oil removed by concentrating residual grain and yeast proteins by methods commonly used in distilling industry. Contains concentrated spent yeast products. Does not contain condensed distillers solubles unless listed.
Fermented Protein Mechanically Separated	48+	1-5	<8	27.5	Post distillation separation of protein from the whole stillage, utilizing only mechanical separation. Will contain spent yeast products, no non-mechanical methods utilized post distillation. Does not contain distillers solubles unless listed.

This table is meant for informational purposes only and does not convey any regulatory or specification requirements. The information listed is not all inclusive and is current as of date displayed in title and will be updated as industry innovation continues. The Distillers Grain Technology Council does not endorse any specific product or brands of feed products.

2/11/2021

Collaboration Outside DGTC

- U.S. Grains Council
- Renewable Fuels Association
- Iowa Renewable Fuels Association
- National Corn Growers Association
- American Feed Industry Association
- National Grain and Feed Association
- Food and Drug Administration
- Association of American Feed Control Officials
- American Distilling Institute
- American Craft Spirits Association
- Kentucky Distillers' Association
- James B. Beam Institute for Kentucky Spirits
- Department for Environmental Protection, Kentucky Energy and Environment Cabinet

2021 DGTC Symposium Welcome

- 2021 Symposium
  - Marketing
  - Innovation
  - Nutrition
  - Regulatory
  - Distilleries
- Networking!!!

2021 DGTC Symposium Welcome

Beam SUNTORY

BetaTec® hop products

FLUID QUIP TECHNOLOGIES

Green Plains®

iff

ICM®

NOVITA

Phibro ETHANOL™

POET®

SCOULAR™

The Andersons®

2021 DGTC Symposium Welcome

AMERICAN CRAFT SPIRITS ASSOCIATION

AMERICAN DISTILLING INSTITUTE

AMERICAN FEED INDUSTRY ASSOCIATION

ADM

COMMONWEALTH AGRI-ENERGY

FOUNDATION ANALYTICAL LABS

GROWTH ENERGY

INTERNATIONAL INGREDIENT CORPORATION

IOWA RENEWABLE FUELS ASSOCIATION

KATZEN INTERNATIONAL, INC.

NATIONAL COREN GROWERS ASSOCIATION

NATIONAL CORN-TO-ETHANOL RESEARCH CENTER

PANNONIA BIO

RENEWABLE FUELS ASSOCIATION

SGS

SYNTHICA ENERGY, LLC

U.G. GRAINS COUNCIL

UNITED BIO ENERGY

US COMMODITIES

VALERO ENERGY RENEWABLE FUELS

Join Us!!!

- Why be a member of DGTC?
- Technical Expertise
- Regulatory Voice
- Marketing Opportunities

the energy of innovation™

310 N. First St. Colwich, KS 67030
316.796.0900 | icminc.com

THANK YOU

Jackie Lissolo
DGTC 2021 Symposium Welcome

316-977-6350

jlissolo@icminc.com

@ICM_Technology @icmtechnology linkedin.com/company/icm-inc_2