Expanding Ethanol and DDGS Use Around the World

August 12, 2022
A global network of professionals building worldwide demand and developing markets for U.S. grains and ethanol.
Exports of U.S. ethanol have risen to over 1.2 Bgal in the first 10 months of this marketing year, on track to hit 1.5 Bgal this crop year.

Source: USDA Global Agricultural Trade System & *USGC estimates for Japan
USGC Priority Markets

U.S. GRAINS COUNCIL GLOBAL ETHANOL PROMOTION

PRIORITY MARKETS
- Brazil
- Canada
- China
- India
- Japan
- Indonesia
- Mexico

TIER-TWO MARKETS
- Colombia
- South Korea
- Philippines
- Vietnam
- Peru
- European Union and United Kingdom

2021/2022 FOCUS
- Nigeria, Ghana, Kenya, Egypt
- Persian Gulf
- Chile and Ecuador
- Central America
- Taiwan
- Australia and New Zealand

1.22 billion gallons of U.S. ethanol were exported to 110 countries in 2020/2021, the 5th highest export total.
Canada – consistent partner, poised for policy driven growth

- Final Clean Fuel Regulation (CFR) has been released
- Currently at E5 nationwide
- Anticipated shift to E15 by 2030
- Progressive provincial policies will continue to be primary demand driver
Next biofuel policy to be implemented in April 2023

- Incremental increase of 66% cap under the biofuel policy
  - E3 (360 mil gal) as a stepping-stone for E10?
    - Legally permitted
    - Gasoline standard exists
    - Limited infrastructure modification
    - Vehicles are compatible

- Higher U.S. market share by recent and future carbon emission reduction

- May 2022 U.S.-Japan Summit Joint Statement on doubling Japan’s demand by 2030
EU exports up nearly 60% YOY
UK up almost 600%

EU – 4th largest export market at 116 million gallons
• Russia’s war on Ukraine affecting attitudes toward energy security
• Food & fuel debate rising, concerns with countries pledging crop-based fuel caps

UK – 6th largest export market at 77 million gallons
• Current blend rate estimated at 8%
• September 2021 E10 rollout, implementation to continue into 2023 to Northern Ireland paving way to Ireland expansion
India – increased blend level goals. Future targets cannot be met without imports

- 3rd largest export market totaling 127 million gallons through June ‘22 – all industrial
- Nationwide E10 blend reached in January 2022 – Can they sustain it?
- E20 goal by April 2025
- U.S. India Trade Policy Forum to include ethanol and DDGS
  - Biofuel Partnership Forum expected summer 2022
Southeast Asia – setting the stage for future US ethanol implementation

Ministry of Finance in Vietnam issued July emergency decree to combat inflationary pressure
- Lowering ethanol tariff from 15% to 12%
- USGC seeking 5% tariff to be on par with other imports

USGC estimates the U.S. could supply Indonesia upwards of 250 million gallons of ethanol in a scenario where E5 is allowed discretionarily through national fuel spec allowances.
- Barriers remain with 30% ethanol tariff
- E3 blend level only allowed in gasoline imports

Philippines has nationwide E10 policy
- 9th largest U.S. ethanol importer in MY20/21, imports make up 50% of supply
- Regulators developing new national fuel standards for E15 & E20; contingent on vehicle compatibility test
Challenging Markets

Preferential Pemex treatment from Mexican authorities by delaying or canceling permits from US energy companies
- June 2021 revision back to 5.8 percent ethanol hinders viability of a 10 percent blend rate allowance in the market
- USGC focusing on regulatory and legal avenues during 5 year regulatory review process

Current China political situation leaves little avenue for near term opportunities

Colombia Countervailing duty case is ongoing
- USGC remains coordinated with industry partners and is actively involved in legal proceedings
- Duties remain at current levels during the review process

Brazil 20% TRQ tariff temporarily removed
- Industry priority for complete removal of tariff
Annual DDGS Exports Third Largest in 2021

U.S. DDGS Exports (MT)

Source: US Customs Data

2003 – USGC promotion begins
741,960

2015 – Record year on heels of Chinese purchases
12,694,806

2021
11,548,509
2022 DDGS Exports on Pace for Third Largest Year in History

U.S. DDGS Exports January through June (MT)

Source: U.S. Customs Data

5,674,826
Where Are Our Markets?

MARKETS OF NOTE

• Mexico
  • Record last year, on pace to break it this year

• South Korea
  • Up 18%, looking to set a record year

• Turkey
  • Down 47% due to currency devaluation (-108% y/y)

• Canada
  • Up 126% due to drought in Canada

• Spain
  • Up 64% due to Ukraine conflict

U.S. GRAINS COUNCIL

TOTAL UP 5% Y/Y
# Incoming Soy Crush

<table>
<thead>
<tr>
<th>New Plants / Expansions</th>
<th>Bushels / Day</th>
<th>Start Date</th>
<th>Port</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shell Rock, IA</td>
<td>110,000</td>
<td>Dec-22</td>
<td>GULF</td>
</tr>
<tr>
<td>ADM/Marathon, Spiritwood, ND</td>
<td>150,000</td>
<td>Fall 2023</td>
<td>PNW</td>
</tr>
<tr>
<td>Epitome Energy, Crookston, MN</td>
<td>120,000</td>
<td>Late 2023</td>
<td>PNW</td>
</tr>
</tbody>
</table>

**24% increase in capacity**

**12-15 MMT increase in SBM production**

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</tr>
</thead>
<tbody>
<tr>
<td>AGP, Sgt Bluff, IA</td>
<td>50,000</td>
<td>Late 2023</td>
<td>PNW</td>
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<tr>
<td>AGP, David City, NE</td>
<td>150,000</td>
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<td>PNW</td>
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<tr>
<td>Marquis Energy, Hennepin, IL</td>
<td>115,000</td>
<td>Late 2024</td>
<td>GULF</td>
</tr>
<tr>
<td>Norfolk Crush, Norfolk, NE</td>
<td>115,000</td>
<td>Late 2024</td>
<td>PNW</td>
</tr>
</tbody>
</table>

**TOTAL**

1,380,000 (37,500 MT/Day)

Source: American Soybean Association
Thank You!