

USDA Foreign Agricultural Service

# GAIN Report

Global Agricultural Information Network

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## Saudi Arabia

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### Saudi Arabian Alfalfa Hay Market

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**Approved By:**

Alan Hallman

**Prepared By:**

FAS Riyadh with support from FAS Budapest, Canberra,  
Madrid, Rome, and Washington DC

**Report Highlights:**

Saudi Arabia's decision to phase out forage production will increase demand for imported high protein alfalfa hay. The additional 825,000 metric tons of projected imports would be worth roughly \$250 million per year at 2016 prices. The United States is well positioned to supply a large portion of the additional demand, but this may require that U.S. exporters and Saudi importers change business practices. While the United States is the primary exporter of alfalfa hay, Saudi dairies are attempting to develop alternative sources.

## **The Opportunity**

Saudi Arabia's decision to phase out forage production will increase demand for imported high protein alfalfa. We forecast demand for high quality alfalfa hay at about 1.2 million metric tons (MMT) per year once the transition is complete, and estimate that Saudi Arabia imported 380 thousand metric tons (TMT) of hay, of which 257 TMT<sup>2</sup> was alfalfa from the United States, in 2016. The additional 825 TMT of projected imports would be worth roughly \$250 million per year at 2016 U.S. export prices. Saudi Arabian dairies are the primary source of demand for high quality alfalfa hay.

The United States is well positioned to supply a large portion of the additional demand for high protein alfalfa hay. The United States dominates global alfalfa hay exports and shipped 2.5 MMT<sup>2</sup> of alfalfa hay worth \$746 million in 2016. In 2016, the United States produced 58 MMT of alfalfa hay, a decrease from 59 MMT in 2015, according to the National Agricultural Statistics Service (NASS). Alfalfa production data go back to 1919 and show U.S. alfalfa production peaked at almost 92 MMT in 1986. More recent highs are 71 and 84 MMT in 2009 and 1999, respectively. Only a portion of alfalfa production is high protein alfalfa.

While this is an opportunity for U.S. producers, meeting Saudi Arabian demand may require that U.S. exporters and Saudi importers adopt a longer term approach to contracting. Expanding the supply of exportable alfalfa is a multi-year process. Multi-year contracts and business arrangements can decrease financial risk for U.S. suppliers and provide confidence to Saudi dairies.

## **The Competitors**

While the United States is the primary exporter of alfalfa hay, Saudi dairies are attempting to develop alternative sources, like Argentina and Sudan. Argentine exports of hay to Saudi Arabia, however, only reached 15 TMT in 2016.<sup>1</sup> This is an increase from 13 TMT in 2015, but exports are reportedly restrained by transportation issues.

Several Arab governments and companies own high quality agricultural lands in Sudan, but there are significant problems getting hay from the field to the port. There are reports that the Saudi government is committed to resolving the transportation issues, but the investment required will be significant, and is probably too large for a single company to justify.

Spain is a large hay exporter and shipped 824 TMT of hay (dehydrated fodder) in 2015, 553 TMT of which was shipped to the UAE.<sup>1</sup> Through October 2016, Spain exported 82 TMT of hay to Saudi Arabia. This was an increase from 31 TMT the year before. Total Spanish hay exports to Saudi Arabia reached 81 TMT in 2015 and we estimate Spanish exports to Saudi Arabia at 100 TMT in 2016. Spanish production of bales of dehydrated fodder peaked at 1.48 MMT in 2011.<sup>3</sup> Spanish fodder exports are almost all alfalfa. More information on Spanish fodder production can be found in the [2016 FAS Madrid Forage Report](#). Poor corn crop margins may lead to a marginal increase in area planted to alfalfa in 2017.

Italy exported 411 TMT of hay in 2015, 349 TMT of which went to the UAE.<sup>1</sup> Through October 2016, Italian hay exports are down 16% over prior year levels. Italy did not export hay to Saudi Arabia in the first ten months of 2016 after exporting 15 TMT in 2015. Italy also exported 151 TMT of alfalfa pellets in 2015, of which 48 TMT was shipped to the UAE and 2 TMT to Saudi Arabia. Italy exported 120 TMT of alfalfa pellets in the first ten months of 2016, of which 26 TMT was shipped to the UAE and 106 MT to Saudi Arabia.

Romania has become a significant exporter of forage over the last two years. Romania exported 67 TMT of hay in 2015, a dramatic increase from eight TMT in 2014.<sup>1</sup> Through October 2016, Romania exported 76 TMT of hay, a 19% increase over the same period in 2015. Of its January – October 2016 exports, 63 TMT went to the UAE and Lebanon. Three TMT were exported to Saudi Arabia, up from zero in 2015. Romania's exports are the result of investments made by several large farms in alfalfa production and storing technology, and the support allocated to alfalfa producers (about 520 Euro/HA). Only alfalfa sold domestically is eligible for the subsidy payment. Alfalfa is the most important forage crop in Romania and we believe most exported hay is alfalfa-based.

Australia is another large hay exporter and shipped 1.1 MMT in 2016.<sup>1</sup> But only 40 TMT of its hay exports were classified as alfalfa, and 35 TMT of that was used as ship stores – most likely as feed for livestock in transit. Most Western Australian hay production is apparently oaten hay and Western Australian alfalfa prices have been uncompetitive. That, however, may be changing. In the Pilbara region, mining companies have been using excess water from mines for agriculture, and a large expansion of hay production would reduce unit costs. Australian hay exporter Thompson and Redwood was also recently partly acquired by a Saudi company.

### **When, and a Few Uncertainties**

To reduce water consumption, Saudi Arabia began a three year plan to phase-out domestic green forage production in 2016. Forage production is estimated at about four MMT per year. It is not clear, however, that Saudi Arabia will be able to modify farmer's feed preferences quickly enough to meet the deadline, if feed mills and feed distribution will be ready in time, or that relative grain and hay prices will cooperate with the government's plans.

Trade sources indicate that once the transition is complete the country will depend on about 1.5 MMT of imported green forage and domestically produced compound feed for its commercial dairy cattle and livestock. Approximately 1.2 MMT of the green forage will be high protein alfalfa hay destined for the country's commercial dairy farms. The remaining 300 TMT of forage will be imported by domestic feed processors as a fiber ingredient to produce compound feed.

### **Feed Sector Summary**

The Saudi government has been encouraging the creation of animal feed companies and the expansion of existing firms. It wants to drastically increase compound feed production so that

domestic livestock producers have adequate quantities of nutritional processed feed at competitive prices.

The government offers prospective investors incentives which include long term interest free loans and import subsidies on 31 feed grains and feed ingredients. The current list of animal feed products eligible for import subsidies includes, yellow corn, soybean meal, distillers dried grain with soluble (DDGS), corn-gluten feed (CGF) and sorghum, barley straw, sunflower meal, sugar cane molasses, alfalfa hay, and rice hulls. The subsidy rates are calculated according to the energy and protein contents of each feed ingredient, and the subsidy levels have been recently modified. The import subsidy on alfalfa hay is \$59/MT. The subsidies on 48 percent protein soybean meal and corn are \$137 and \$82 per MT, respectively.

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Notes:

1 Global Trade Atlas

2 U.S. Census Bureau Trade Data

3 GAIN Report SP1613, FAS Madrid, 29 July 2016