NORTH AMERICAN WOOD CHIP EXPORTS
RECAP: NORTH AMERICAN WOOD CHIP EXPORTS IN 2014

WEST COAST:
957,000 BDMT

EAST COAST:
730,000 BDMT

TOTAL:
1,687,000 BDMT
FIBRECO EXPORT DOCK: VANCOUVER, BC

WOOD CHIP EXPORTS:
180,000 BDMT

WOOD PELLET EXPORTS:
800,000 MT
Fibreco began exporting wood chips in 1977;

In 2005, Fibreco entered the wood pellet terminal handling business and built silos to store and load wood pellets for west coast exporters;

Their terminal is located at the Fibreco Export Dock, Vancouver, BC;

Fibreco was started by a consortium of sawmill companies, including some of the largest lumber producers in British Columbia;

Species: Mainly SPF (Spruce-Pine-Fir) with some Douglas-fir;

Main market: Japan pulp and paper; and

Volumes have been stable at 190,000 to 250,000 BDMT per year.
FIBRECO’S VOLUME OF EXPORTS HAS BEEN STEADY AVERAGING AROUND 200,000 BDMT ANNUALLY

Source: Fibreco/RISI
ROSEBURG FOREST PRODUCTS TERMINAL: COOS BAY, OR

LOCATED IN COOS BAY OREGON

2015 ROSEBURG WOOD CHIP EXPORTS: 550,000 BDMT
OREGON CHIP TERMINAL: COOS BAY, OR

LOCATED IN COOS BAY OREGON

2015 OREGON CHIP TERMINAL: EXPORTS

175,000 BDMT
Roseburg, Coos Bay, OR

- Roseburg Forest Products is a major wood products producer in Oregon (sawmills and wood panels);
- International trade in wood chips began in 1965 in Coos Bay. These first shipments were made by Weyerhaeuser;
- Roseburg built their export terminal in 1967 in Coos Bay, OR, and started shipping wood chips in 1968;
- Species: Mostly Doug-fir with some “whitewood” (hemlock, true firs);
- Markets: Primarily Japan with some shipments to China; and
- At current volumes there is excess capacity, have the ability to add loading of biomass chips and or wood pellets.

Oregon Chip Terminals, Coos Bay, OR

- OCT started shipping wood chips in 1971; and
- OCT is 100% owned by Daio Paper, exports Doug-fir chips exclusively to Daio Paper.
CHIP EXPORTS FROM COOS BAY WHICH INCLUDES BOTH ROSEBURG AND OCT (ALMOST ALL SOFTWOOD) HAVE AVERAGED 630,000 BDMT SINCE 2005.

Source: Roseburg/OCT/RISI
CALIFORNIA REDWOOD: EUREKA, CA

- Owned by Simpson Timber, a major West Coast timberland owner and lumber producer;
- Export dock was used by Louisiana Pacific back in the 1990’s to export Doug-fir and tanoak wood chips to Japan;
- Terminal located in Eureka, CA;
- Began operations in 2014 shipping two vessels for a total of 44,000 BDMT and again shipped two vessels in 2015 for a total of 44,000 BDMT; and
- Shipments were mainly Douglas Fir and were sent to the far east for paper production.
CALIFORNIA REDWOOD WOOD CHIP EXPORTS

California Redwood Wood Chip Exports

Source: RISI
GREAT NORTHERN TIMBER: SHEET HARBOUR, NS

LOCATED IN SHEET HARBOUR NOVA SCOTIA

FIRST SHIPMENT LOADED IN 1977

2015 HARDWOOD WOOD CHIP EXPORTS:

168,000 BDMT
GREAT NORTHERN TIMBER: DALHOUSIE, NB

LOCATED IN DALHOUSIE
NEW BRUNSWICK

FIRST SHIPMENT LOADED IN 2011

2015 SOFTWOOD WOOD CHIP EXPORTS:

36,000 BDMT
GREAT NORTHERN TIMBER

- First vessel loaded in Sheet Harbour in December of 1997;
- Terminals located in Sheet Harbour, Nova Scotia and Dalhousie, New Brunswick;
- Dalhousie terminal operational as of 2011;
- Species: Maple and Birch & SPF;
- Previous markets: Japan, Northern Europe;
- Main market: Turkey;
- Volumes: steady to increasing;
- Great Northern Timber became FSC and PEFC Chain of Custody certified in 2010; and
- The Dalhousie terminal does not ship between mid December and early May due to ice.
GREAT NORTHERN TIMBER WOOD CHIP EXPORTS

AFTER A RECORD 2012 GNTI SAW A SIGNIFICANT DECREASE IN VOLUMES DUE TO POLITICAL, CIVIC & ECONOMIC UNREST IN ITS MAIN EXPORT MARKET.

IN 2014 GNTI EXPERIENCED TOUGH LOCAL COMPETITION FOR RAW MATERIAL AND RISING COSTS, HOWEVER HIGHER DEMAND FROM ITS CUSTOMERS AND A WEAK CANADIAN DOLLAR MADE FOR A EXCELLENT YEAR IN 2015.

Source: GNTI

Great Northern Timber Wood Chip Exports

- Dalhousie
- Sheet Harbor

Thousand BDMT


Source: GNTI
ENVIRO SRL: PORT OF BELLEDUNE, NB

LOCATED IN BELLEDUNE NEW BRUNSWICK

FIRST SHIPMENT 2014

2015 HARDWOOD WOOD CHIP EXPORTS:
44,000 BDMT

2015 SOFTWOOD WOOD CHIP EXPORTS:
18,000 BDMT
Enviro is a biomass trading and distribution company with head offices in Genova, Italy;
Enviro is actively trading biomass for power generation, wood chips for MDF production and wood pellets for residential use;
Enviro purchases bulk pellets and bags them at their bagging facility located within the Port of Genova. They sell and distribute their bagged pellets under the brand name: Robin Wood;
Loaded first vessel of biomass chips in May of 2014 for delivery to Italy;
Terminal is located in Belledune, New Brunswick;
Species: Birch and Maple and SPF;
Main market: Turkey; and
Volumes: Maximum of 100,000 BDMT per year.
ENVIRO BEGAN SHIPMENTS FROM BELLEDUNE WITH BIRCH AND MAPLE CHIPS WITH THE INTENTION OF MARKETING TO BIOMASS AND MDF END-USERS.

WITH THE WEAKNESS OF THE CANADIAN DOLLAR ENVIRO MOVED INTO SOFTWOOD IN 2015 WITH A SHIPMENT OF SPF.

YILDIZ ENTEGRE USA: PORT OF WILLMINGTON, NC

LOCATED IN
WILMINGTON
NORTH
CAROLINA

FIRST SHIPMENT
2011

2015 WOOD
CHIP EXPORTS:

220,000 BDMT
YILDIZ ENTEGRE USA

- Yildiz Entegre is a vertically integrated wood panel producer in Turkey;
- Yildiz Entegre is one of the leaders in their industry with “Entegre” meaning to integrate in English;
- When presented with an opportunity to assume a wood chip operation in the USA, Yildiz Entegre was quick to integrate it into their operations;
- Furthermore Yildiz Entegre purchased two wood chip carriers in order to transport their wood chips from their new facility in Wilmington, NC;
- The facility was originally developed by Jordan Lumber, a large sawmill in the area who eventually sold the operation to an Italian Company by the name of ICL. Yildiz assumed operations from ICL in 2011;
- Yildiz made its first shipment in late 2011; and
- Yildiz has continued to execute its US expansion strategy, procuring a trial shipment from Theodore, Alabama in September of this year.
YILDIZ ENTEGRE USA WOOD CHIP EXPORTS

SHIPMENTS GREW QUICKLY FROM 2011.

THE DIP IN 2013 WAS DUE TO THE CIVIL, POLITICAL AND ECONOMIC UNREST IN TURKEY AT THE TIME.

YILDIZ ENTEGRE USA HAS CONTINUED TO GROW ITS VOLUME WITH A RECORD YEAR IN 2015.

Source: Yildiz Entegre USA
COGENT: EAST COAST TERMINALS, SAVANNAH, GA

LOCATED IN SAVANNAH GEORGIA

2015 WOOD CHIP EXPORTS:
310,000 BDMT

2015 GEORGIA BIOMASS WOOD PELLET EXPORTS:
675,000 MT
COGENT: PORT OF MOREHEAD CITY, NC

LOCATED IN
MOREHEAD CITY
NORTH
CAROLINA

2015
WOOD CHIP
EXPORTS:

80,000 BDMT
East Coast Terminals, Savannah, Georgia

- Shipping since 2005;
- Cogent was the first major exporter of wood chips to the panel industry in Turkey;
- Cogent has exported more than 7 million metric tons;
- Chip loading provided by East Coast Terminal Co., which has been exporting woodchips since the late 1970’s, to countries including, Sweden and Japan;
- East Coast Terminals is the largest chip loading facility in Eastern NA;
- Species: Southern Yellow Pine;
- Major market: Turkey;
- After a set back in 2013 due to political, civil and economic unrest in Turkey, volumes began to recover in 2014 and continued to accelerate in 2015; and
- All Cogent wood chips are sustainably harvested and are SFI procurement certified.

Port of Morehead City, Morehead City, North Carolina

- After completing a total refurbishment Cogent shipped its first vessel in 2011;
- Vessel loading services are provided by Industrial Marine Services, Inc.;
- Prior to laying idle for decades this facility was once a major exporter of wood chips to Japan during the 1980’s and early 90’s;
- Species: Southern Yellow Pine and Mixed Hardwood containing uncontrolled species as per EU regulations;
- Major market: Turkey and EU biomass markets; and
- Volumes are subject to market demand and can be increased from 2015 levels.
AFTER SIX YEARS OF STEADY GROWTH COGENT SAW A DRAMATIC DECREASE IN VOLUMES IN 2013 DUE TO MARKET INSTABILITY.

AFTER THE DECLINE OF 2013 COGENT HAS CONTINUED TO SEE DEMAND INCREASE TO NEAR RECORD LEVELS.

2015 RANKS AS THE 2ND BEST YEAR IN TERMS OF VOLUME SINCE INCEPTION.

Source: Cogent
DAEWOO WOOD GROUP: KEYSTONE TERMINALS, JACKSONVILLE, FL

LOCATED IN
JACKSONVILLE
FLORIDA

2015 DAEWOO WOOD GROUP CHIP EXPORTS:

80,000 BDMT
Daewoo Wood Group is a subsidiary of Daewoo International, South Korea’s largest trading company with revenue of USD $18 Billion in 2013;
Began shipping wood chips from Keystone Terminals in Jacksonville, Florida in 2013;
Species: Southern Yellow Pine;
Major market: Turkey;
Intended volume 120,000 BDMT per year.
To date 60,000 BDMT per year in 2013 and 2014 has been shipped;
Volumes are expected to remain in the 60,000 to 80,000 BDMT range per year; and
Terminal in Jacksonville does not currently have a conventional ship loader or truck receiving system, however it is expected to be upgraded in the coming year.
DAEWOO WOOD GROUP WOOD CHIP EXPORTS

AFTER A DIFFICULT INITIAL START-UP DAEWOO HAS STARTED TO PERFORM WELL.


A NEW SHIP LOADER AND TRUCK DUMP SHOULD IMPROVE THINGS FURTHER HEADING INTO 2016.

Source: RISI
TOTAL NORTH AMERICAN WOOD CHIP EXPORTS IN 2015

**West Coast:**
- 957,000 BDMT 2014
- 949,000 BDMT 2015

**East Coast:**
- 730,000 BDMT 2014
- 956,000 BDMT 2015

**Total:**
- 1,687,000 BDMT 2014
- 1,905,000 BDMT 2015

Source: North American Wood Chip Exporters/RISI
TOTAL EXPORTS FROM THE US SOUTH HIT A RECORD OF JUST OVER 600,000 BDMT IN 2012.


EXPORTS CONTINUED THEIR REBOUND TO POSTED A RECORD OF 692,000 BDMT IN 2015 SINCE EXPORTS BEGAN AGAIN IN EARNEST IN 2006.
US SOUTH: CHALLENGES FOR 2016 & BEYOND

- The US South accounts for over 75% of the exports from the East Coast of North America;
- Wood chip exporters will face increased competition domestically;
- This competition will come from the growing wood pellet industry and the traditional heavyweights, such as International Paper, Georgia Pacific, KapStone, Rayonier and Weyerhaeuser, whom all have a significant presence in the US South and who ultimately dictate stumpage prices;
- Weather, bad weather drives prices higher instantly only to fall slowly. South Carolina was recently hit with a 1,000 year rain event due to Hurricane Joaquin. This will result in increased pressure on stumpage as the South Carolina mills effected are forced to broaden their procurement radius;
- Despite an abundant wood basket logging capacity continues to decline. According to the University of Georgia there has be a 15-20% decrease in logging capacity since 2007. The average age of loggers continues to increase as the next generation chooses alternative employment. This is primarily due to a decrease in profitability for loggers and a lack of capital expenditure required to increase capacities. Simply put loggers are not properly incentivised!
- The net effect of competition and decreased logging capacity has and is projected to continue to increase the cost of wood in the forest;
- Across the entirety of the US South Pulpwood prices appear to remain relatively flat from 2014 to 2015. However, when we focus on the coastal regions there is a significant upward trend. For example Coastal Georgia and South Carolina realized a 13% increase in Pine Stumpage during the first 3 quarters of 2015. Coastal North Carolina realized an 8% increase over the same period; and
- We anticipate these trends to continue into 2016 with a significant possibility of severe upward pressure due to extended wet weather periods caused by the impending El Nino.
Freight is an integral part of the export business comprising up to 50% of the delivered cost;

Wood chips are generally shipped using specialized vessels called wood chip carriers;

Japanese companies own 89% of the world’s wood chip carriers with 58% being controlled by just two Japanese companies, MOL and NYK;

Limited wood chip carrier availability in the Atlantic and near monopoly control of the worldwide fleet increases costs, limits flexibility and puts pressure on wood chip exporters;

The current weakness in the overall freight market, however, has vastly increased the shipping options available to exporters;

In 2015 several shipments of wood chips were delivered on bulk carriers at rates that were competitive to the rates provided by wood chip carriers;

Having bulk carriers as a shipping option allows a level of flexibility to the exporter that is not afforded by the traditional wood chip carrier; and

The sheer volume of bulk carriers available allows exporters more spot opportunities and to be more flexible with deliveries to its customers.
SUMMARY: NORTH AMERICAN WOOD CHIP EXPORTS

- Volume on the West Coast saw a nominal decrease as compared to 2014 as the East Coast saw a material increase in 2015 of more than 220,000 BDMT;
- China continued to be the major market for the West Coast exporters and the panel industry in Turkey continued to buy every cargo available on the East Coast;
- The number of terminals exporting wood chips expanded in 2015 with the addition of a trial cargo shipped from Theodore, AL bringing the current operational total to 11;
- Orinoco Wood Chips located in Venezuela suspended shipments in 2015 due to the severe political and economic problems facing the country. The closing of OWC represents an opportunity for reliable North American exporters to continue to pick up the lost tonnage;
- The current weakness in the overall freight market provides more shipping options to exporters, this increased liquidity is beneficial to exporters and to its customers;
- Wet weather and increased competition are driving wood costs up in the US South;
- The major markets for both coasts are currently facing political and economic turmoil, China’s economy has cooled rapidly over the last 8 months; and
- Turkey is facing several political and economic challenges, along with major turmoil in the surrounding region. Just two days ago there was a redo of the Summer election, the results of which will become apparent in the coming months.