

Special Report

Next Generation Biofeedstocks: Resources for Renewables

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Contents

Section	Page
1 Executive Summary	1-1
1.1 OVERVIEW	1-1
1.2 CARBOHYDRATE AND BIOMASS FEEDSTOCKS.....	1-1
1.2.1 Conventional Feedstocks	1-1
1.2.2 Next Generation Feedstocks	1-3
1.3 OLEAGINOUS FEEDSTOCKS	1-4
1.3.1 Conventional Feedstocks	1-4
1.3.2 Next Generation Feedstocks	1-7
1.4 ECONOMICS	1-7
1.4.1 Carbohydrate and Biomass Feedstocks	1-7
1.4.2 Oleaginous Feedstocks.....	1-10
1.5 MARKETS	1-13
1.5.1 Carbohydrate and Biomass Feedstocks	1-13
1.5.2 Oleaginous Feedstocks.....	1-17
2 Introduction.....	2-1
2.1 OVERVIEW	2-1
2.2 SCOPE	2-3
2.3 FOOD VERSUS FUELS	2-5
3 Carbohydrate and Biomass Feedstocks	3-1
3.1 CONVENTIONAL CARBOHYDRATE FEEDSTOCKS.....	3-1
3.1.1 Dominant Global Biofeedstocks.....	3-2
3.1.2 Minor Global Biofeedstocks	3-15
3.2 NEXT GENERATION BIOMASS FEEDSTOCKS	3-45
3.2.1 Biomass Grasses	3-45
3.2.2 Wood/Wood Wastes	3-52
3.2.3 Agricultural Residues.....	3-65
3.2.4 Milling Wastes	3-71
3.2.5 Refuse	3-80
4 Oleaginous Feedstocks.....	4-1

4.1	CONVENTIONAL OIL FEEDSTOCKS	4-1
4.1.1	Dominant Conventional Oleaginous Biofeedstocks	4-1
4.1.2	Minor Conventional Oleaginous Feedstocks	4-24
4.2	NEXT GENERATION OLEAGINOUS FEEDSTOCKS	4-31
4.2.1	Algae	4-31
4.2.2	Jatropha	4-36
5	Economics	5-1
5.1	INTRODUCTION	5-1
5.2	CONVENTIONAL CARBOHYDRATE CROPS	5-3
5.2.1	Corn/Maize – North America	5-3
5.2.2	Sugarcane – Brazil	5-8
5.2.3	Wheat – Europe.....	5-13
5.2.4	Cassava – Thailand	5-17
5.2.5	Conventional Crop Competitive Economics	5-20
5.3	NEXT GENERATION BIOMASS CROPS.....	5-22
5.3.1	North America	5-22
5.3.2	South America	5-35
5.3.3	Europe	5-38
5.3.4	Asia	5-41
5.3.5	Next Generation Biomass Crops Competitive Economics	5-44
5.4	CONVENTIONAL OLEAGINOUS BIOMASS AND OIL EXTRACTION	5-47
5.4.1	North America	5-47
5.4.2	South America	5-58
5.4.3	Europe	5-63
5.4.4	Asia	5-68
5.4.5	Conventional Oil Competitive Economics	5-72
5.5	NEXT GENERATION OLEAGINOUS CROPS AND OIL EXTRACTION	5-73
5.5.1	Algae Oil.....	5-73
5.5.2	Open Pond Algae Oil	5-77
5.5.3	Heterotrophic Algae Oil.....	5-80

5.5.4	Algae Oil via Photobioreactors	5-84
5.5.5	Next Generation Oil Competitive Economics	5-87
6	Markets	6-1
6.1	CARBOHYDRATE AND BIOMASS FEEDSTOCKS	6-1
6.1.1	Overview	6-1
6.1.2	North American Supply	6-2
6.1.3	South American Supply	6-10
6.1.4	Western Europe Supply	6-18
6.1.5	Asian Supply	6-25
6.2	OLEAGINOUS FEEDSTOCKS	6-33
6.2.1	North American Supply	6-34
6.2.2	South American Supply	6-37
6.2.3	Western Europe Supply	6-41
6.2.4	Asian Supply	6-45

Figure	Page
1.1 Global Feedstocks for Ethanol Production	1-1
1.2 World Corn Production.....	1-2
1.3 World Sugarcane Production	1-3
1.4 World Soybean Oil Production.....	1-5
1.5 World Palm Oil Production	1-6
1.6 World Palm Kernel Oil Production.....	1-6
1.7 Conventional Carbohydrates Comparative Economics	1-8
1.8 Next Generation Biomass Comparative Economics.....	1-9
1.9 Comparison of Conventional Carbohydrate and Next Generation Biomass Crops...	1-10
1.10 Conventional Oleaginous Feedstocks Comparative Economics.....	1-11
1.11 Next Generation Oil Comparative Economics	1-12
1.12 Comparison of Conventional Oil and Next Generation Oil Production	1-13
1.13 Major Biomass Feedstocks Production in North America	1-14
1.14 Major Biomass Feedstocks Production in South America	1-15
1.15 Major Biomass Feedstocks Production in Europe	1-16
1.16 Major Biomass Feedstocks Production in Asia	1-17
1.17 North American VegeOil Supply.....	1-18
1.18 North American Rendered Animal Fats Production.....	1-19
1.19 South America VegeOil Supply.....	1-20
1.20 South American Rendered Fats Production.....	1-21
1.21 Western Europe VegeOil Supply	1-22
1.22 Western Europe Rendered Fats Production	1-23
1.23 Asia VegeOil Supply	1-24
1.24 Asia Rendered Fats Production.....	1-25
2.1 GHG Reductions Possible Through Feedstock Selection.....	2-1
2.2 Next Generation IBRs.....	2-2
2.3 Sun Grant/DOE Regional Biomass Feedstock Partnership 2010 Field Trial Locations.....	2-3
2.4 Report Coverage and Broader Value Chain.....	2-4
2.5 Investment in Biofuels and Biochemicals.....	2-5

3.1	Global Feedstocks for Ethanol Production	3-1
3.2	World Corn Production.....	3-3
3.3	World Corn Net Trade	3-4
3.4	United States Supply, Demand, and Trade for Corn	3-5
3.5	U.S. End Consumption of Corn	3-6
3.6	U.S. Ethanol Feedstocks	3-7
3.7	China Supply, Demand, and Trade for Corn	3-8
3.8	Argentina Supply, Demand, and Trade for Corn	3-9
3.9	World Sugarcane Production	3-11
3.10	Historical and Projected Net Trade and World Sugar Price	3-12
3.11	Brazil Supply, Demand, and Trade for Sugarcane	3-13
3.12	India Supply, Demand, and Trade for Sugarcane	3-15
3.13	World Wheat Production	3-17
3.14	World Wheat Net Trade.....	3-18
3.15	China Supply, Demand, and Trade for Wheat.....	3-19
3.16	India Supply, Demand, and Trade for Wheat	3-20
3.17	United States Supply, Demand, and Trade for Wheat	3-21
3.18	France Supply, Demand, and Trade for Wheat.....	3-22
3.19	World Sugar Beet Production	3-24
3.20	Russian Federation Supply, Demand, and Trade for Sugar Beet	3-25
3.21	France Supply, Demand, and Trade for Sugar Beet	3-26
3.22	The Cassava Plant and Cassava Root	3-27
3.23	Main Applications of Cassava	3-28
3.24	World Cassava Production.....	3-29
3.25	World Dried Cassava Net Trade.....	3-30
3.26	Thailand Supply, Demand, and Trade for Cassava.....	3-33
3.27	Typical Sweet Potato Plant and Roots	3-34
3.28	World Sweet Potato Production.....	3-38
3.29	World Sweet Potato Net Trade	3-39
3.30	China Supply, Demand, and Trade for Sweet Potato	3-40
3.31	Indonesia Supply, Demand, and Trade for Sweet Potato	3-41

3.32 World Sorghum Production	3-42
3.33 World Sorghum Net Trade.....	3-43
3.34 United States Supply, Demand, and Trade for Sorghum	3-44
3.35 Argentina Supply, Demand, and Trade for Sorghum	3-45
3.36 Map of Annual Switchgrass Yields, as of 2009.....	3-46
3.37 U.S. Estimated Supply of Wood Waste at \$80 per Dry Ton	3-56
3.38 U.S. Forest Resources by Type.....	3-56
3.39 Schematic of Biomass Sources from Industrial Forestry.....	3-57
3.40 Breakdown of U.S. Forest Resources by Production Volume.....	3-59
3.41 U.S. Regional Distribution of Forestry Residues.....	3-61
3.42 U.S. Logging Residues	3-62
3.43 U.S. Slash Residues	3-63
3.44 U.S. Lumber Mill Residue	3-63
3.45 U.S. Regional Distribution of Urban Wood Wastes	3-64
3.46 U.S. Regional Production of Corn Stover, County-level.....	3-65
3.47 U.S. Corn Stover Availability in Top-Producing States	3-66
3.48 Corn Stover Availability at Different Prices.....	3-67
3.49 Brazilian Sugarcane Field Trash Burning.....	3-72
3.50 Production from a Palm Oil Mill	3-75
3.51 Pulp and Paper Solid, Liquid, and Gaseous Wastes	3-78
3.52 World Map indicating Major Forests.....	3-79
3.53 Trade of Paper and Paper Products	3-80
3.54 MSW to RDF Sorting and Pelletizing Process	3-82
3.55 U.S. MRF Ownership, 2012	3-84
3.56 Differences in Global MSW Practices	3-86
3.57 U.S. Regional Differences in MSW Management Practices	3-87
3.58 MSW Generation Rates by Country	3-88
3.59 Split of Global Production of MSW	3-89
3.60 MSW Generation and Recycling Rates, 1960-2010	3-89
3.61 U.S. Waste to Energy Plants, by State	3-90
3.62 U.S. MSW Generation by County Map	3-91

3.63 U.S. Population Density Map	3-91
3.64 Global Population Density Map.....	3-92
4.1 World Soybean Production	4-3
4.2 World Soybean Oil Production.....	4-3
4.3 World Soybean Net Trade	4-4
4.4 World Soybean Oil Net Trade	4-5
4.5 United States Supply, Demand, and Trade for Soybeans	4-6
4.6 Brazil Supply, Demand, and Trade for Soybeans.....	4-7
4.7 World Palm Oil Production	4-9
4.8 World Palm Kernel Oil Production.....	4-9
4.9 World Palm Oil Net Trade.....	4-10
4.10 World Palm Kernel Oil Net Trade	4-11
4.11 Indonesia Palm Oil Supply, Demand, and Trade Summary	4-12
4.12 Indonesia Palm Kernel Oil Supply, Demand, and Trade Summary	4-12
4.13 Malaysia Palm Oil Supply, Demand, and Trade Summary	4-13
4.14 Malaysia Palm Kernel Oil Supply, Demand, and Trade Summary	4-14
4.15 World Rapeseed Production by Country	4-16
4.16 World Rapeseed Oil Production by Country	4-16
4.17 World Rapeseed Net Trade.....	4-17
4.18 World Rapeseed Oil Net Trade.....	4-18
4.19 EU Rapeseed Supply, Demand, and Net Trade	4-19
4.20 EU Rapeseed Oil Supply, Demand, and Net Trade	4-19
4.21 Canada Rapeseed Supply, Demand and Net Trade	4-20
4.22 Canadian Rapeseed Supply, Demand, and Net Trade	4-21
4.23 Animal Fats Value Chain.....	4-22
4.24 Some Microalgae Species Currently in Commercial Production	4-32
4.25 Raceway Algae Pond Diagram	4-33
4.26 Round Pond.....	4-33
4.27 Some of the Different Types of Closed Systems for Algal Cultivation	4-34
4.28 Solazyme's Lab-Scale Fermenter	4-36
4.29 Jatropha Curcas Plant.....	4-36

5.1	Average Corn Yield in the United States.....	5-4
5.2	Corn Production Cost Sensitivity to Yield.....	5-5
5.3	Corn to HFCS and Glucose Range of Costs and Prices, 2012	5-8
5.4	Average Sugarcane Yield by Major Producing Countries.....	5-9
5.5	Sugarcane Cost of Production Sensitivity to Yield.....	5-10
5.6	Average Wheat Yield.....	5-13
5.7	Wheat Cost of Production Sensitivity to Yield.....	5-15
5.8	Average Cassava Yield.....	5-17
5.9	Cassava Cost of Production Sensitivity to Yield	5-18
5.10	Conventional Carbohydrates Comparative Economics	5-20
5.11	Conventional Carbohydrates Comparative Economics	5-21
5.12	Current Annual Switchgrass Yields.....	5-22
5.13	Switchgrass Cost of Production Sensitivity to Yield.....	5-23
5.14	Hybrid Poplar Yield versus Tree Age.....	5-26
5.15	Hybrid Poplar Cost of Production Sensitivity to Yield	5-27
5.16	Average Corn Yield	5-29
5.17	Corn Stover Cost of Production Sensitivity to Yield.....	5-30
5.18	RDF Cost of Production Sensitivity to Tipping Fee.....	5-33
5.19	Average Sugarcane Yield by Major Producing Countries.....	5-35
5.20	Sugarcane Field Trash Cost of Production Sensitivity to Yield	5-36
5.21	Average Wheat Yield.....	5-38
5.22	Wheat Straw Collection Cost Sensitivity to Yield.....	5-39
5.23	Rice Straw Collection Cost of Production Sensitivity to Yield.....	5-42
5.24	Next Generation Biomass Comparative Economics.....	5-44
5.25	Next Generation Biomass Comparative Economics.....	5-46
5.26	Comparison of Conventional Carbohydrate and Next Generation Biomass Crops...	5-47
5.27	United States Soybean Yield	5-48
5.28	Soybeans Cost of Production Sensitivity to Yield.....	5-51
5.29	United States Rapeseed Yield.....	5-53
5.30	Rapeseed Cost of Production Sensitivity to Yield.....	5-55
5.31	Brazil and Argentina Soybean Yield	5-58

5.32 Soybean Cost of Production Sensitivity to Yield	5-60
5.33 Europe Rapeseed Yield.....	5-63
5.34 Rapeseed Cost of Production Sensitivity to Yield	5-65
5.35 Malaysian Oil Palm Fresh Fruit Bunches Yield	5-68
5.36 Oil Palm Fresh Fruit Bunches Cost of Production Sensitivity to Yield	5-69
5.37 Conventional Oleaginous Feedstocks Comparative Economics.....	5-72
5.38 Next Generation Oil Comparative Economics	5-87
5.39 Comparison of Conventional Oil and Next Generation Oil Production	5-88
6.1 Global Ethanol Production.....	6-1
6.2 Feedstocks for Ethanol Production Globally	6-2
6.3 North American Corn End Use.....	6-3
6.4 North American Crystal Sugar Production by Feedstock Type.....	6-4
6.5 North American Conventional Carbohydrate Supply	6-5
6.6 North American Corn Stover Production	6-6
6.7 Agricultural Residues in the United States	6-7
6.8 North American Agricultural Wastes	6-8
6.9 North American MSW Production	6-9
6.10 Major Biomass Feedstocks Production in North America	6-10
6.11 Sugarcane End-Use in South America.....	6-11
6.12 South American Conventional Carbohydrate Supply.....	6-12
6.13 Sugarcane Bagasse Supply in South America	6-13
6.14 Sugarcane Field Trash Supply in South America	6-14
6.15 Sugarcane Wastes in South America	6-15
6.16 South American MSW Production—Brazil, Chile.....	6-16
6.17 South American Agricultural Residues	6-17
6.18 Major Biomass Feedstocks Production in South America	6-18
6.19 Sugar Beet End Use in Western Europe	6-19
6.20 Western Europe Conventional Carbohydrate Supply	6-20
6.21 Wheat Straw Production in Europe.....	6-21
6.22 Map of Agriculture in Europe.....	6-22
6.23 Europe Agricultural Residue Production	6-23

6.24 MSW Production in Europe.....	6-24
6.25 Major Biomass Feedstocks Production in Europe	6-25
6.26 Sugarcane End Use in Asia.....	6-26
6.27 Asia Conventional Carbohydrate Supply.....	6-27
6.28 Rice Straw Production in Asia.....	6-28
6.29 Agricultural Residues Production in Asia.....	6-29
6.30 MSW Production in Selected Countries in Asia.....	6-30
6.31 Sugarcane Bagasse Production in Asia.....	6-31
6.32 Sugarcane Trash Production in Asia.....	6-31
6.33 Split of Sugarcane Bagasse and Trash Production in Asia	6-32
6.34 EFB Production in Asia and Oceania	6-32
6.35 Major Biomass Feedstocks Production in Asia	6-33
6.36 North American Oilseed Crop Production.....	6-34
6.37 North American VegeOil Supply.....	6-35
6.38 North American Rendered Animal Fats Production.....	6-36
6.39 North American Conventional Oils Supply	6-37
6.40 South American Oilseed Crops Production	6-38
6.41 South America VegeOil Supply.....	6-39
6.42 South American Rendered Fats Production.....	6-40
6.43 South American Conventional Oils Supply	6-41
6.44 Western Europe Oilseeds Production	6-42
6.45 Western Europe VegeOil Supply	6-43
6.46 Western Europe Rendered Fats Production	6-44
6.47 Western Europe Conventional Oils Supply	6-45
6.48 Asia Oilseed Production	6-46
6.49 Asia VegeOil Supply	6-47
6.50 Asia Rendered Fats Production.....	6-48
6.51 Asia Conventional Oils Supply.....	6-49

Table	Page
1.1 Global Virgin VegeOil Production by Type, 2011/2012	1-4
1.2 Conventional Carbohydrates Comparative Economics	1-8
1.3 Next Generation Biomass Comparative Economics	1-9
1.4 Conventional Oils Comparative Economics	1-11
1.5 Next Generation Oil Comparative Economics	1-12
3.1 Top Five Corn (Maize) Producing Countries in the World, 2011/2012	3-2
3.2 Top Five Sugarcane Producing Countries in the World, 2011/2012	3-10
3.3 Top Five Wheat Producing Countries in the World, 2011/2012	3-16
3.4 Top Five Sugar beet Producing Countries in the World, 2011/2012	3-23
3.5 Top Five Cassava Producing Countries in the World, 2011/2012	3-29
3.6 Comparison of Sweet Potatoes and Yams	3-35
3.7 Top Five Sweet Potato Producing Countries in the World, 2011/2012	3-37
3.8 Top Five Sorghum Producing Countries in the World, 2011/2012	3-42
3.9 SWOT Analysis of Grasses as a Biomass Feedstock for Biofuel Production	3-47
3.10 SWOT Analysis of Trees as a Biomass Feedstock for Biofuel Production	3-58
3.11 Composition of Wheat Straw	3-68
3.12 Top Five Wheat Straw Producing Countries in the World, 2011/2012	3-69
3.13 Nutritive Content of Rice Straw	3-70
3.14 Top Five Rice Straw Producing Countries in the World	3-70
3.15 Top Sugar Cane Bagasse Producing Countries in the World, 2011/2012	3-71
3.16 Top Sugar Cane Field Trash Producing Countries in the World, 2011/2012	3-72
3.17 Top EFB Producing Countries in the World, 2011/2012	3-76
3.18 Typical MSW Composition	3-81
4.1 Global Virgin VegeOil Production by Type, 2011/2012	4-1
4.2 Top Five National Producers of Soybeans, 2011/2012	4-2
4.3 Top Five National Producers of Palm Oil and Palm Kernel Oil, 2011/2012	4-8
4.4 Top World Producers of Rapeseed and Rapeseed Oil, 2011/2012	4-15
4.5 Top Five Worldwide Tallow Producing Countries, 2011/2012	4-23
4.6 Top Five Worldwide Lard Producing Countries, 2011/2012	4-23
4.7 Top Five Producers of Sunflower Seed and Sunflower Seed Oil, 2012-2013	4-25

4.8	Top Five Copra Oil Producing Countries, 2011/2012	4-26
4.9	Top Five Worldwide Producers of Peanut Oil 2011/2012.....	4-27
4.10	Top Five Cottonseed Oil Producing Countries, 2011/2012	4-28
4.11	Top Five Olive Oil Producing Countries, 2011/2012	4-29
4.12	Worldwide Top Five Corn Oil Producing Countries, 2011/2012.....	4-30
4.13	Top Five Linseed Oil Producing Countries, 2011/2012	4-31
5.1	Selected Regional Biofeedstocks Assessed	5-2
5.2	Cost of Production: Corn, no Rotation (15% Moisture).....	5-7
5.3	Cost of Production: Sugarcane, Mechanical Harvest (60% Moisture)	5-12
5.4	Cost of Production: Common Wheat (Dry)	5-16
5.5	Cost of Production: Cassava (15% Moisture).....	5-19
5.6	Conventional Carbohydrates Comparative Economics	5-20
5.7	Conventional Carbohydrates Comparative Economics	5-21
5.8	Cost of Production: Switchgrass (50 % Moisture)	5-24
5.9	Hybrid Poplar: Plantation Founding Model.....	5-25
5.10	Hybrid Poplar: Existing Forest Model	5-25
5.11	Cost of Production: Hybrid Poplar (50% Moisture)	5-28
5.12	Cost of Production: Corn Stover (50 % Moisture)	5-31
5.13	Cost of Production: MSW-RDF (Dry).....	5-34
5.14	Cost of Production: Sugarcane Field Trash (50 % Moisture).....	5-37
5.15	Cost of Production: Wheat Straw Collection (50 % Moisture)	5-40
5.16	Cost of Production: Rice Straw (50 % Moisture)	5-43
5.17	Next Generation Biomass Comparative Economics.....	5-45
5.18	Next Generation Biomass Comparative Economics.....	5-46
5.19	Cost of Production: Soybeans (20% Moisture)	5-50
5.20	Cost of Production: Soy Oil Extraction	5-52
5.21	Cost of Production: Rapeseed (Canola, dry).....	5-56
5.22	Cost of Production: Rapeseed Oil Extraction	5-57
5.23	Cost of Production: Soybean (20% Moisture)	5-61
5.24	Cost of Production: Soybean Oil Extraction.....	5-62
5.25	Cost of Production: Rapeseed (Canola, dry).....	5-66

5.26 Cost of Production: Rapeseed Oil Extraction	5-67
5.27 Cost of Production: Oil Palm Fresh Fruit Bunches (6% Moisture)	5-70
5.28 Cost of Production: Oil Palm Fresh Fruit Bunches Oil Extraction (Dry).....	5-71
5.29 Conventional Oils Comparative Economics	5-72
5.30 Elemental Composition of <i>Dunaliella tertiolecta</i>	5-73
5.31 Various Algae Lipid Yields	5-74
5.32 Algae Protein Uses and Prices	5-76
5.33 Cost of Production: Open Pond Algae Oil.....	5-77
5.34 Cost of Production: Open Pond Algae Oil.....	5-78
5.35 Cost of Production: Open Pond Algae Oil.....	5-79
5.36 Cost of Production: Heterotrophic Algae Oil	5-80
5.37 Cost of Production: Heterotrophic Algae Oil	5-81
5.38 Cost of Production: Heterotrophic Algae Oil	5-82
5.39 Cost of Production: Heterotrophic Algae Oil	5-83
5.40 Cost of Production: PBR Algae Oil	5-84
5.41 Cost of Production: PBR Algae Oil	5-85
5.42 Cost of Production: PBR Algae Oil	5-86
5.43 Next Generation Oil Comparative Economics	5-87
6.1 Corn Stover Harvesting Efficiency	6-6

1.1 OVERVIEW

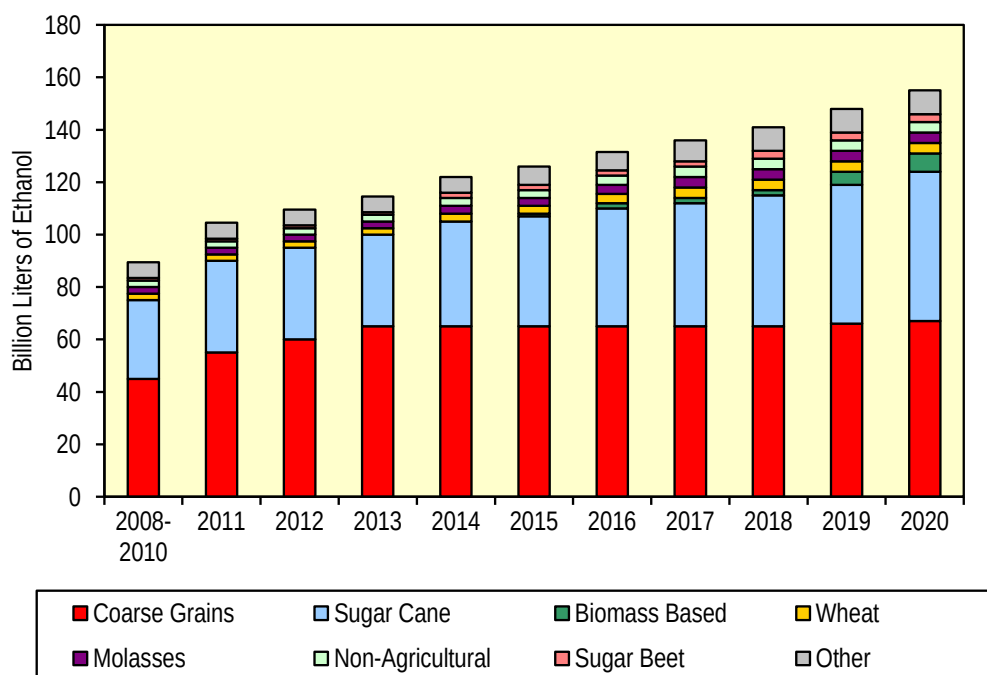
Broad concerns about the future of the global economy and the environment have brought about a new goal for industries, consumers, and governments to strive towards in the twenty-first century: sustainability. Current-generation conventional carbohydrate feedstocks include a wide variety of plant sources. These can include grains such as corn and wheat, grasses such as sugarcane, and roots and tubers such as cassava and sweet potatoes. By far the most abundant of the global biofeedstocks for oils are virgin refined vegetable oils. These feedstocks are already heavily used in fuels production, as food products, and in some industrial applications including oleochemicals and surfactants. Next generation feedstocks are currently under development, as well as the technologies to enable them. Vast quantities of biobased feedstocks are available in all regions.

1.2 CARBOHYDRATE AND BIOMASS FEEDSTOCKS

1.2.1 Conventional Feedstocks

Current global feedstocks for ethanol production are shown in Figure 1.1.

Figure 1.1 Global Feedstocks for Ethanol Production
(Billion liters of ethanol)



Source: Adapted From OECD Agricultural Outlook 2011-2020, <http://www.oecd.org/site/oecd-faoagriculturaloutlook/48178823.pdf>

Dominant global conventional feedstocks include corn and sugarcane. Significant quantities of first generation feedstocks such as these are available in all regions; however these are generally supplies of food as well as feedstocks for industrial biochemicals.