

## Academic and Government Research

Round 6

9/25/2008

Item Designation	Title	Author	School/Area	Date
<b>Disposable Tableware</b>	Degradable and agriculturally based plastics generally derived from corn, crambe, and soy	Center for Crops Utilization Research	Iowa State University	
	Starch Based Polymeric Materials	Piskin, E., H. Yavaz, and R. Narayan	Michigan State University	2001
	Drivers for biodegradable/compostable plastics & role of composting	Narayan, R.	Michigan State University	2001
	Biodegradable Films & Injection Molded Products Based on Soy Protein-Polyester	Narayan, R.	Michigan State University	2000
	Fracture behavior and mechanical performance of biodegradable cornstarch plastic composites	Domingo, B.J.	University of Illinois	1999
	Plasticization of soy protein polymer by polyol-based plasticizers	Mo, X. and X.S. Sun	Kansas State University	2002
	A Method of Preparing Biodegradable Modified-Starch Moldable Products and Films	Narayan, R., S. Bloembergen, and A. Lathia	Michigan State University	1995
	Renewable Resource Based Cellulose Acetate Bioplastic: Effect of Process Engineering on the Performance of Cellulosic Plastic	Mohanty, A.K., A. Wibowo, M. Misra, and L.T. Drzal	Michigan State University	2003
	Bio-based Plastics and Bio-Composites: Role of Compatibilizer To Improve Adhesion	Mohanty, A.K., L.T. Drzal, and M. Misra	25th Annual Meeting of Adhesion Society, Inc. and 2nd World Congress on Adhesion and Related Phenomenon	2002
	Development of Renewable Resource-based Bioplastic: Effect of eco-friendly citrate plasticizer on the performance of Cellulosic Plastics	A. K. Mohanty, L. T. Drzal, A. Wibowo, and M. Misra	Polymer Chemistry Division, American Chemical Society, Vol. 43	2002
	Development of Bio-Based Polyurethanes: Curing Study of Soy Polyol – Isocyanate	K. Ferguson, K. , L.T. Drzal, M. Misra, and A.K. Mohanty	Michigan State University	2001
	Biocomposties: Soy Plastics and Natural Fiber	Hokens, D.D., L.T. Drzal, M. Misra, and A.K. Mohanty	Michigan State University	2001
Polylactide-Based Plastics and Biocomposites	Mohanty, A.K. , L.T. Drzal, B. Rook, and M. Misra	Michigan State University	2001	

Eco-friendly Bio-Composite From Plant Derived Fiber and Crop Derived Plastics	Mohanty, A.K., L.T. Drzal, and M. Misra	American Institute of Chemical Engineers Conference	2001
Environment-friendly "Green" biodegradable composites from natural fiber and cellulosic plastic	Hokens, D., A.K. Mohanty, M. Misra, and L.T. Drzal	Polymer Preprint – Polymer Chemistry Division, American Chemical Society, Vol.42(2)	2001
Improvement of Biobased Fiber-Plastic Composite Properties Through Cold Plasma Treatments	Young, R.A., F. Denes, L. Nielsen, and X. Tu	University of Wisconsin	1996
Cold Plasma State - A New Approach to Improve Surface Adhesion in Lignocellulosic	Young, R.A. and F. Denes	University of Wisconsin	1997
Properties and Microstructure of Plasticized Zein Films		University of Illinois	1997
Turning Biomass into Adhesives and Plastics		National Renewable Energy Laboratory	1994
Agricultural Wastes Make "Agro-plastics" Lighter and Stronger	Graef, J.	US DOE Energy Efficiency and Renewable Energy	2004
Biobased PLA Polymers Grow New Markets for American Corn Products		Biomass Research and Development Initiative	2003
How Green are Green Plastics?	Gerngross, T.U. and S. Slater	Dartmouth College	2000
Plasticulture practice for early fresh market cantaloupe production	Bartolo, M.E. and F.C. Schweissing	Colorado State University	2003
Poly lactides: Plastics from Corn	Dorgan, J.	Colorado School of Mines	2003
Process for plasticiation of corn zein	Masco, M., G.W. Padua, and L.S. Wei	University of Illinois	1995
<b>Expanded Polystyrene (EPS) Foam Recycling Products</b>			
Recycling and Disposal of Industrial, Commercial, and Institutional Solid Waste and Polystyrene Foam: Results of a Survey.	K. Arrowood	Michigan State University	1992
2003 Environment Impact of Burley Tobacco Production in the Eight State Burley Belt	G. Palmer, S. Goode, S. Isaacs	University of Kentucky	2003
A new recycling system for expanded polystyrene using a natural solvent	T. Noguchi, M. Miyashita, Y. Inagaki, H. Watanabe	Packaging Technology and Science, Vol.11(1), Sony Corporation Research Center	1998
Wood-Like Products from Polystyrene	H. Shaughnessy	Materials World, Vol.4(11)	1996

	The Role of Recycled Waste Polystyrene Foam on Physical and Mechanical Properties of Novel Ceiling Boards	M. Chaisupakitsin, T. Apichatsopit	King Mongkut's Institute of Technology	2005
	Polystyrene reclamation process	D. R. Cistone	U.S. Patent 6720467	2004
	Microwave moulding of expandable polystyrene foam with recycled material	M.Y. Teo, H.Y. Yeong, S.W. Lye	Journal of Materials Processing Technology, Vol.63(1-3)	1997
	Reduction in polystyrene with activated agent	C. Iovino	U.S. Patent 5223543	1993
	Polymer Recycling: Opportunities and Limitations	R.S. Stein	Proceedings from the National Academy of Sciences	1992
	Recycling structural foam polystyrene: what goes around comes around	P. Grelle	The Regional Technical Conference of the Society of Plastics Engineers	1993
<b>Heat Transfer Fluids</b>	Finite Element Modeling of Fluid Flow, Heat Transfer and Melting of Biomaterials in a Single-Screw Extruder	Wang, L., G.M. Ganjyal, D.D. Jones, C.L. Weller, and M.A. Hanna	University of Nebraska	2004
	Engineered Soy Oils for New Value Added Applications	Tran, P.T.	Michigan State University	2005
	Engineering Metalworking Fluids	Benes, Jim	American Machinist	2007
<b>Ink Removers and Cleaners</b>	Soy Oil for Solvents, Biodiesel Fuel and Soy Biodiesel from Biomass Conversion	Center for Crops Utilization Research	Iowa State University	
	Reactive Distillation for the Biorefinery: Production of Organic Acid Esters	Asthana, N., A. Kolah, D.T. Vu, C.T. Lira, and D.J. Miller	Michigan State University	2005
	Factors Influencing the Kinetics of Lactic Acid Esterification: Ethyl Lactate by Reactive Distillation	Asthana, N., A. Kolah, D.T. Vu, C.T. Lira, and D.J. Miller	Michigan State University	2005
	Clean Solvents - Alternative Media for Chemical reactions and Processing	Abraham, M.A. and L. Moens	ACS Symposium Series 819	2001
	Opportunities in the Industrial Biobased Products Industry	Carole, T.M, J. Pellegrino and M.D. Paster	Applied Biochemistry and Biotechnology	2004
	Top Value Added Chemicals from Biomass Volume 1 - Results of Screening for Potential Candidates from Sugars and Synthesis Gas		Pacific Northwest National Laboratory and National Renewable Energy Laboratory	2004
	Bio Based Alternative Solvents: How Well Do They Work	Marshall, J. and H. Wilcox	University of Massachusett	2003

<b>Mulch and Compost Materials</b>	Impacts of Compost Blanket on Erosion Control, Revegetation, and Water Quality at Highway Construction Sites in Iowa	Persyn, R.A.	Iowa State University	2003
	Alternatives to Sawdust Mulch in Blueberries	Strik, B., R. Penhallegon, J. DeFrancesco, and J. Mann	Oregon State University	2006
	Composting Grass Seed Straw	Edgar, T.G.	Oregon State University	1996
	Mulches for Weed Control in Containers	Altland, J.	Oregon State University	
	Risk of Uing Chipped, Eastern Filbert Blight Infected Hazelnut as Mulch around New Trees	Pscheidt, J.W. and S.A. Cluskey	Oregon State University	2005-2006
	Compost Specialist Compost Tea Trial	Lane County Extension Service Compost Specialists	Oregon State University	2007
	Compost Research	Churchill, D.B., W.R. Horwath, and L.F. Elliott	Oregon State University	1993
	Compost Utilization Research	Churchill, D.B., W.R. Horwath, L.F. Elliott, and D.M. Bilsland	Oregon State University	1994
	Fate of Applied Agricultural Chemicals and Plant Nutrients in Alluvial Soils as Affected by Sugarcane Management Practices	Bengtson, R.L. and H.M. Selim	Louisiana State University	
	Field Decay of Sugarcane Mulch Residue and its Effect on Metribuzin and Atrazine Retention and Release	Naquin, B.J. and H.M. Selim	Louisiana State University	2002
	Effect of Compost on Soil Properties in Dallas, Texas	Wiendorf, D.C., R. Zartman, and B.L. Allen	Louisiana State University	2006
	Composting: A Disposal Method for Fish Waste	AgCenter Research and Extension	Louisiana State University	2000
	Increasing cotton yield on drought-prone soils by mulching paper mill sludge	Boquet, D.J. and G.A. Breitenbeck	Louisiana State University	1999
Composting of pelletized wood used as bedding material in swine production	Shahbazi, A. and Y. Li	North Carolina A&T State University	2005	

Dairy compost utilization program marketing composted manure to public entities	Texas Cooperative Extension	Texas A&M	2006
Water quality implications of using composted organics on highway right-of-way	Glanville, T.D., R.A. Persyn, and T.L. Richard	Iowa State University	2002
Cover crop production and weed control on highway right-of-ways using composted organics	Glanville, T.D., R.A. Persyn, and T.L. Richard	Iowa State University	2002
Evaluation of soil erosion and soil erodibility factors for composte organics in highway right-of-ways	Glanville, T.D., R.A. Persyn, and T.L. Richard	Iowa State University	2002
Laboratory composting of polylactic acid industrial agricultural products center	Weber, R.	University of Nebraska	
Mulches for the home landscape	Streich, A. and R. Gaussion	University of Nebraska	2007
Garden Compost	Steinegger, D.H. and D.E. Janssen	University of Nebraska	1993
Using yard waste compost to control soil erosion from steep slopes on construciton sites	Franti, T. and B. Dvorak	University of Nebraska	2006
Soil properties as influenced by phosphorus- and nitrogen-based manure and compost applications	Eghball, B.	University of Nebraska	2002
Biodegradation and Composting Studies	Narayan, R.	Michigan State University	
Compost production and use	Biernbaum, J.A. and A. Fogiel	Michigan State University	2005
Using mulches in managed landscapes	Herms, D., M. Gleason, J. Iles, D. Lewis, H. Hoitink, and J. Hartman	Ohio State University, Iowa State University, Ohio State University, and University of Kentucky	2001

Using manure and compost as nutrient sources for fruit and vegetable crops	Rosen, C.J. and P.M. Bierman	University of Minnesota	2005
Utilization of municipal solid waste compost as bedding material for cattle feedlots	Zehnder, C.M., A. DiCostanzo, K. Thate, R. Gilland, M.J. Murphy, and T.R. Halbach	University of Minnesota	1998
Utilization of solid waste compost for crop production	Mamo, M., T.R. Halbach, and C.J. Rosen	University of Minnesota	1998
Do cows last longer in compost barns?	Rudstrom, M. and M. Endres	University of Minnesota	2007
Using paper mill sludge and compost in potato production: first year effects on soil quality and crop production	Cooperband, L., A. Stone, and B. Foley	University of Wisconsin	
Improving soils for vegetable gardening	Riofrio, M. and E.C. Wittmeyer	Ohio State University	
Straw-mulch rate effect on soil water storage and sorghum yield	Unger, P.W.	Soil Science Society of America	1978
The effects of various rates of surface mulch on infiltration and erosion	Mannering, J.V. and L.D. Meyer	Soil Science Society of America	1963
The role of mulch and its architecture in modifying soil temperature	Bristown, K.L.	Australian Journal of Soil Research	1988
Effect of winter wheat ( <i>triticum aestivum</i> ) straw mulch level on weed control	Crutchfield, D.A., G.A. Wicks, and O.C. Burnside	Weed Science	1984
Alfalfa living mulch advances biological control of soybean aphid	Schmidt, N.S., M.E. O'Neal, and J.W. Singer	USDA ARS	2007
Legume living mulches for corn and soybean	Singer, J.W. and P. Pedersen	USDA ARS	2005
Mulch type affects growth and tuber production of yellow nutsedge ( <i>cyperus esculentus</i> ) and purple nutsedge ( <i>cyperus rotundus</i> )	Webster, T.	USDA ARS	2005

The effects of termites and straw mulch on soil nitrogen in a creosotebush ( <i>larrea tridentata</i> ) dominated chihuahan desert ecosystem	Brown, M. and W. Whitford	USDA ARS	2003
Effect of mulch, mycorrhizal inoculation, and surround on late fall pepper production	Makus, D.	USDA ARS	2005
Pest management benefits of compost mulch in orchards	Brown, M. and T. Tworkoski	USDA ARS	2004
Characteristics and fertilizer value of compost dairy barn manure	Russelle, M., K. Blanchet, and L. Everett	USDA ARS	2007
Effect of chitin compost and broth on biological control of <i>meloidogyne incognita</i> on tomato ( <i>lycopersicon esculentum</i> mill)	De Jin, R., J. Won Suh, R. Dong Park, Y. Woong Kim, H. Krishnan, and K.Y. Kim	USDA ARS	2005
Compost effect on water retention and native plant establishment on a construction embankment	Singer, J., R. Malone, M. Tomer, T. Meade, and J. Welch	USDA ARS	2006
Tillage and compost effects on corn growth, nutrient accumulation, and grain yield	Singer, J., S. Logsdon, and D. Meek	USDA ARS	2007
Runoff, erosion and nutrient losses from compost and mulch blankets under simulated rainfall	Risse, L., L. Faucette, M. Nearing, J. Gaskin, and L. West	USDA ARS	2002
Turning Residuals into Bioproducts	Robert Steuteville	BioCycle	1992
USDA Cafeteria Tests Biobased Products	P. Millner, M Green, M Romero	BioCycle	2006
Matching Up Waste Materials with Large-Scale Landscaping Needs	Schwab, Jean	BioCycle	2004
Optimizing management options for solid wastes	Martin, Kay	BioCycle	2002
Conversion technologies add to organics recycling	Goldstein, Jerome	BioCycle	2000
Biodegradable Paper/Polymerized Vegetable Oil Mulches for Propagation of Tomatoes and Peppers	Shogren, Randal, David, Monica	University of Illinois	2007

	The Effect of Natural Mulches on Crop Performance, Weed Suppression, and Biochemical Constituents of Catnip and St. John's Wort	Duppong, L. M., Delate, K., Liebman, M., Horton, R., Romero, F., Kraus, G., Petrich, J., Chowdbury, P.K.	Iowa State University	2006
	Evaluating the Efficacy of Wood Shreds for Mitigating Erosion	Foltz, Randy B., Copeland, Natalie S.	USDA Forest Service	2007-2008
	Potential of Olive Mill Waste and Compost as Biobased Pesticides Against Weeds, Fungi, and Nematodes	Cayuela, M.L., Millner, P.D., Meyer, S.L.F, Roig, A.	USDA ARS	2007-2008
	Bio-based Plant Nutrients: Stability, Maturity, & Microbial Activity	Millner, Patricia	USDA	2005
	Thermophilic Methan Production and Oxidation in Compose	Jäckel, Udo, Thummes, Kathrin, Kämpfer, Peter	Institut for Applied Microbiology, Giessen, Germany	2004
<b>Multipurpose Lubricants</b>	Crambe containing lubricants	Center for Crops Utilization Research	Iowa State University	
	Measuring Fuel Savings From Soy-Based Gage-Face Lubricant on Rail Track Straightways	Honary, L.A.T.	University of Northern Iowa	
	Development of Soybean-Based Biorenewable Source of Fuels and Lubricants	Nikolau, B.J., E.S. Wurtele, D. Nettleton, J.V. Shanks, M. Westgate, E.G. Hammond, T. Wang, S. Sundararajan, and D. Hayes	Iowa State University	
	Boundary lubrication properties of lipid-based compounds evaluated using microtribological methods	Bhuyan, S., S. Sundararajan, L. Yao, E.G. Hammond, and T. Wang	Iowa State University	2006
	Stable Vegetable Oil based Lubricants	Vickray, R.	Michigan State University	2004
	Industrial Uses of Soyoil: A Market Analysis	Industrial Agricultural Products Center	University of Nebraska	1994
		Ag-Based Industrial Lubricant Research Program	University of Northern Iowa	
	The Use of Soybean Oil in Biobased Products	Erhan, S.	USDA ARS	2006

	Chemical Systems for Soybean Oil Conversion to Industrial Products		USDA ARS	
	Synthesis and Characterization of Biobased Lubricant Additives	Sharma, B., J. Perez, and S. Erhan	USDA ARS	2006
	Friction and Wear Behavior of Biobased Lubricant Additives	Sharma, B., J. Perez, and S. Erhan	USDA ARS	2006
	Friction Behavior of Some Seed Oils: Bio-Based Lubricant Applications	Adhvarya, A., G. Biresaw, B. Sharma, and S. Erhan	USDA ARS	2006
	Vegetable Oil Based Lubricants for Industrial Uses	Erhan, S. and B. Sharma	USDA ARS	2006
	Use of Vegetable Oils in Functional Fluids	Erhan, S., A. Adhvaryu, and Z. Liu	USDA ARS	2002
	Soybean Oil-Based Base Stocks	Erhan, S.	USDA ARS	2001
	New and Expanded Uses of Oilseed Products and By-Products	Wan, P., M. Dowd, I. Lima, M. Kuk, and O. Dailey	USDA ARS	
	New Lubricants from vegetable oil: cyclic acetals of methyl 9,10-dihydroxystearate	Filley, J.	Colorado School of Mines	2004
	Development of biobased synthetic fluid: application of molecular modeling to structure-physical property relationship	Adhvaryu, A., B.K. Sharma, H.S. Hwang, S.Z. Erhan, and J. Perez	American Chemical Society	2005
<b>Office Paper</b>	Bagasse fiber for production of nonwoven materials	Chiparus, O.I.	Louisiana State University	2004
	Investigation of biodegradable nonwoven composites based on cotton, bagasse and other annual plants	Zhang, X.	Louisiana State University	2004
	Physical, chemical, and mechanical properties of bamboo and its utilization potential for fiberboard manufacturing	Li, X.	Louisiana State University	2004
	Hemp: A new crop with new uses for North America	Small, E. and D. Marcus	Purdue University	2002
	Nalgrass: A nonwood fiber source suitable for existing US pulp mills	Lewis, M. and M. Jackson	Purdue University	2002
	Hemp: Specialty crop for the paper industry	Capelle, A.	Purdue University	1996
	Effect of cereal straw fibre addition to papermaking furnish	Tschirner, U.W., S. Ramaswamy, and A. Goel	University of Minnesota	2003

News Technology	Fontelera, Jorina	Converting magazine	2007
Tips for green paper-package converting.	Lunati, David	Converting magazine	2007
Nonwood fibers: European prospects for using nonwood fibers	Paavilainen, Leena	PPI	1998
Limited impact seen on paper segments due to duty cut	Sanyal, Badal	Businessline	2003
Nonwood fiber could play a major role in future U.S. papermaking furnishes	Atchison, Joseph E.	Pulp & Paper	1995
Smart Papers' Super-Luxury Kromekote Brand Achieves Important Environmental Milestone-Full FSC Certification	Anonymous	PR Newswire	2008
Keen for Green Design	DeWitt, Maggie	Print Professional	2008
Softening Paper's Environmental Impact	Neubauer, Bob	In-Plant Graphics	2006
FSC-Certified Paper: Seeing the wood from the trees		Printing World	2005
Too Bad We Can't Print on Tissue...Or Can We?	Miller, Tyson	BookTech the Magazine	2005
Mat and Silk Art Papers	Dinkovski, Noli	Printweek	2005
Paper Paradox	Picklyk, Doug	Canadian Printer	2005
Product focus: Business papers	Marion Hudson	Office Solutions	2003
Economics and feasibility of a Greenfield cereal straw market pulp mill	Shrinath, A., U. Tschirner, and S. Ramaswamy	University of Minnesota	2003
Pulp and paper from blue agave waste from tequila production	Idarraga, G., J. Ramos, and V. Zuniga	University of Wisconsin	1999
Biochemical pulping of kenaf and other agro-based materials	Bustamante, P, J. Ramos, V. Zuniga, H. Sabharwal, and M. Akhtar	University of Wisconsin	1999
Processing of agro-based resources into pulp and paper	Rowell, R. and R.A. Young	University of Wisconsin	1997
Non-wood fiber as an alternative to wood fiber in chinas pulp and paper industry	Hammett, A.L., R.L. Youngs, X. Sun, and M. Chandra	Virginia Tech University	2001

	Biophysical aggregation in LCA: Ecological economic characterization of eucalyptus and hemp papers	Vieira, R., T. Domingos, P. Canaveira, and A. Simoes	Ecological Economics	2003
	Structural characterization of kenaf lignin: differences among kenaf varieties	Nishimura, N., A. Izumi, and K. Kuroda	University of Tsukuba	2001
	Printability of sized kenaf (hibiscus cannabinus) papers	Ashori, A. and W.D. Raverty	Iranina Research Organization of r Science and Technology and Commonwealth Scientific and industrial Research Organization	2007
	Alternative fiber resources for pulp and paper industry of bangladesh: why and what?	Saha, N. I. Kawata, and Y. Furukawa	Journal of Forest Research	1997
	Comparative alkaline pulping of two bamboo species from Sudan	Khristova, P., O. Kordashia, R. Patt, and I. Karar	Cellulose Chemistry and Technology	2006
	New uses for kenaf	Abbott, T.P.	USDA ARS	2000
<b>Topical Pain Relief Products</b>	The effect of spinally administered agents on pain transmission in man and animals	Yaksh, T.L., P. Durant, B. Onofrio, and C.W. Stevens	Oklahoma State University	1984
	Natural remedies ease summertime skin irritations	McKenna, D.	University of Minnesota	
<b>Turbine Drip Oils</b>	Engineered soy oils for new value added applications	Tran, P.T.	Michigan State University	2005
	Lubricity characteristics of selected vegetable oils, animal fats, and their derivatives	Fernando, S., M. Hanna, and S. Adhikari	American Society of Agricultural and Biological Engineers	2007
	Industrial uses of soyoil: A market analysis	Industrial Agricultural Products Center	University of Nebraska	1994
	Soy oil for irrigation drip oil	Industrial Agricultural Products Center	University of Nebraska	