

Accepted Manuscript

Title: Improved material properties of solution-cast starch films: Effect of varying amylopectin structure and amylose content of starch from genetically modified potatoes

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PII: S0144-8617(15)00423-3
DOI: <http://dx.doi.org/doi:10.1016/j.carbpol.2015.05.024>
Reference: CARP 9928

To appear in:

Received date: 30-3-2015
Revised date: 4-5-2015
Accepted date: 5-5-2015

Please cite this article as: MENZEL, C. A. R. O. L. I. N., ANDERSSON, M. A. R. I. E. T. T. E., ANDERSSON, R. O. G. E. R., VÁZQUEZ-GUTIÉRREZ, J. O. S. É. L., DANIEL, G. E. O. F. F. R. E. Y., LANGTON, M. A. U. D., GÄLLSTEDT, M. I. K. A. E. L., and KOCH, K. R. I. S. T. I. N. E., Improved material properties of solution-cast starch films: Effect of varying amylopectin structure and amylose content of starch from genetically modified potatoes, *Carbohydrate Polymers* (2015), <http://dx.doi.org/10.1016/j.carbpol.2015.05.024>

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1 Highlights:

- 2 - Targeted gene suppression in potato resulted in starches with increased amylose content.
- 3 - High-amylose starch exhibited changed granular and molecular structures with longer
- 4 amylopectin chains.
- 5 - Starch with high amylose and long-chain amylopectin improved physical properties of
- 6 films.
- 7 - Starch films were stiffer and stronger probably due to interconnected starch network.
- 8 - Results suggest great potential of these starches for renewable barrier coatings.

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