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Presentation from the USDA Agricultural Outlook Forum 2017

United States Department of Agriculture
93rd Annual Agricultural Outlook Forum
“A New Horizon: The Future of Agriculture”

February 23-24, 2017
Arlington, Virginia

GMO disclosure: Transparency for the market – an economic perspective

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Agricultural Outlook Forum February 2017

EMAC

Economics and Management of Agrobiotechnology Center

<http://www.emac.missouri.edu>

Legislative intent of Agricultural Marketing Act of 1946

§1621. Congressional declaration of purpose:

“The Congress declares that a sound, efficient, and privately operated system for distributing and marketing agricultural products is essential to a prosperous agriculture and is indispensable to ... the welfare ... of the Nation.”

GMO disclosure amendment

- USDA Rulemaking by July 2018
- Requires a national, uniform disclosure standard for food intended for human consumption that is or may be “bioengineered”
- Three options for disclosure:
 - Text on package
 - A symbol
 - An electronic or digital link (QR code)
- Alternatives for small packaging

GMO disclosure amendment

Scope Issues:

- define terms --“may be bioengineered,”
“conventional breeding”
- Define amount of a bioengineered substance that may be present to qualify as “bioengineered food”
- How “non-GMO” products may be defined
- How highly refined products may be treated

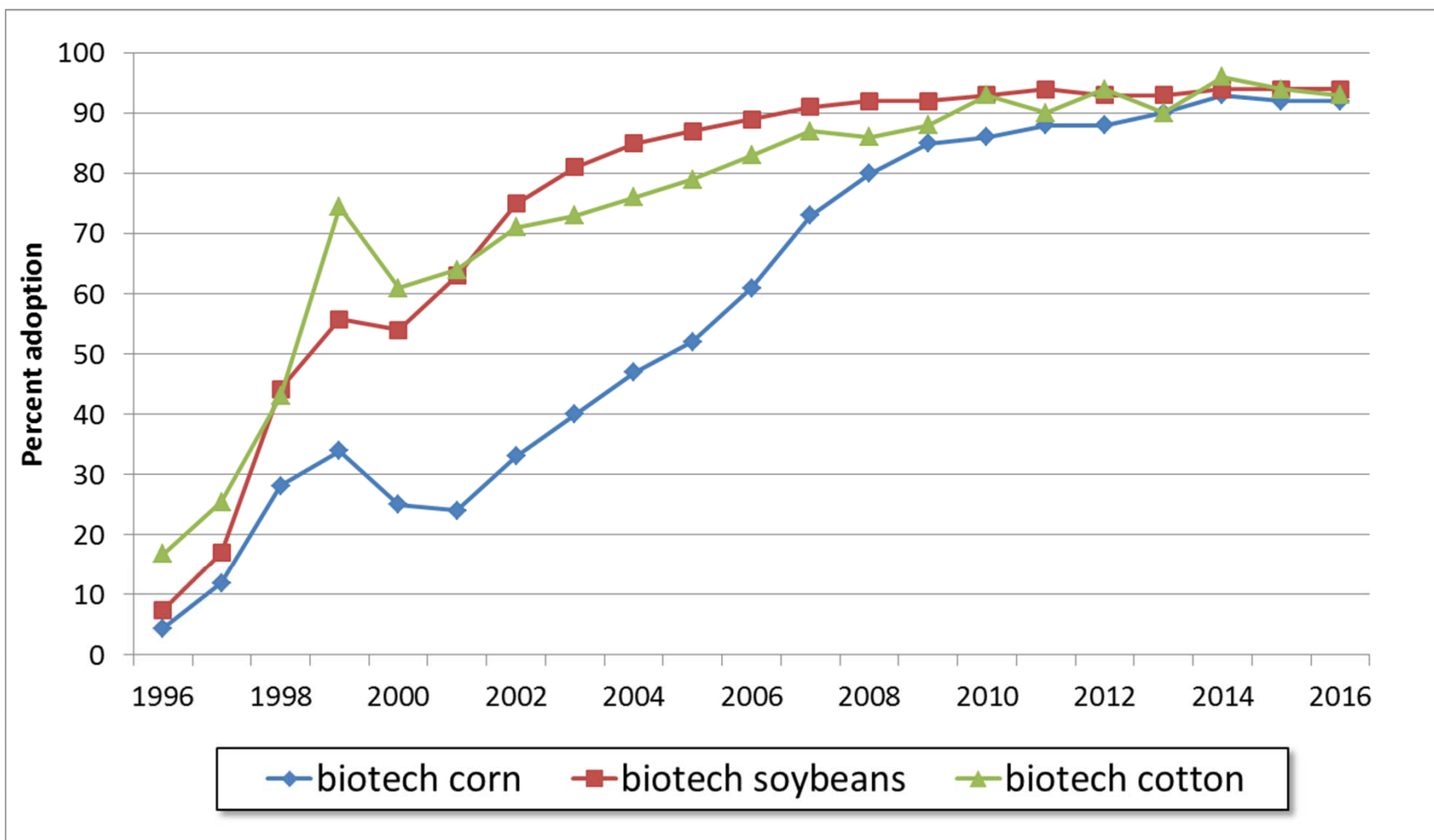
Economic considerations of USDA's rulemaking

- Parameters that shape market efficiency, producer and consumer welfare
 - Production and distribution costs and how they vary with tolerances, etc.
 - Consumer preferences for info, labels, tolerances, etc.
 - Producer and consumer heterogeneity
 - Credibility of labeling system
 - etc.
- Empirical analyses on the potential impact of regulatory levers on such parameters

Producer heterogeneity and segments

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Producers of biotech crops



Data source: USDA ERS; ISAAA, 2017

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Producers of non-GM crops

Who is the non-GM crop producer

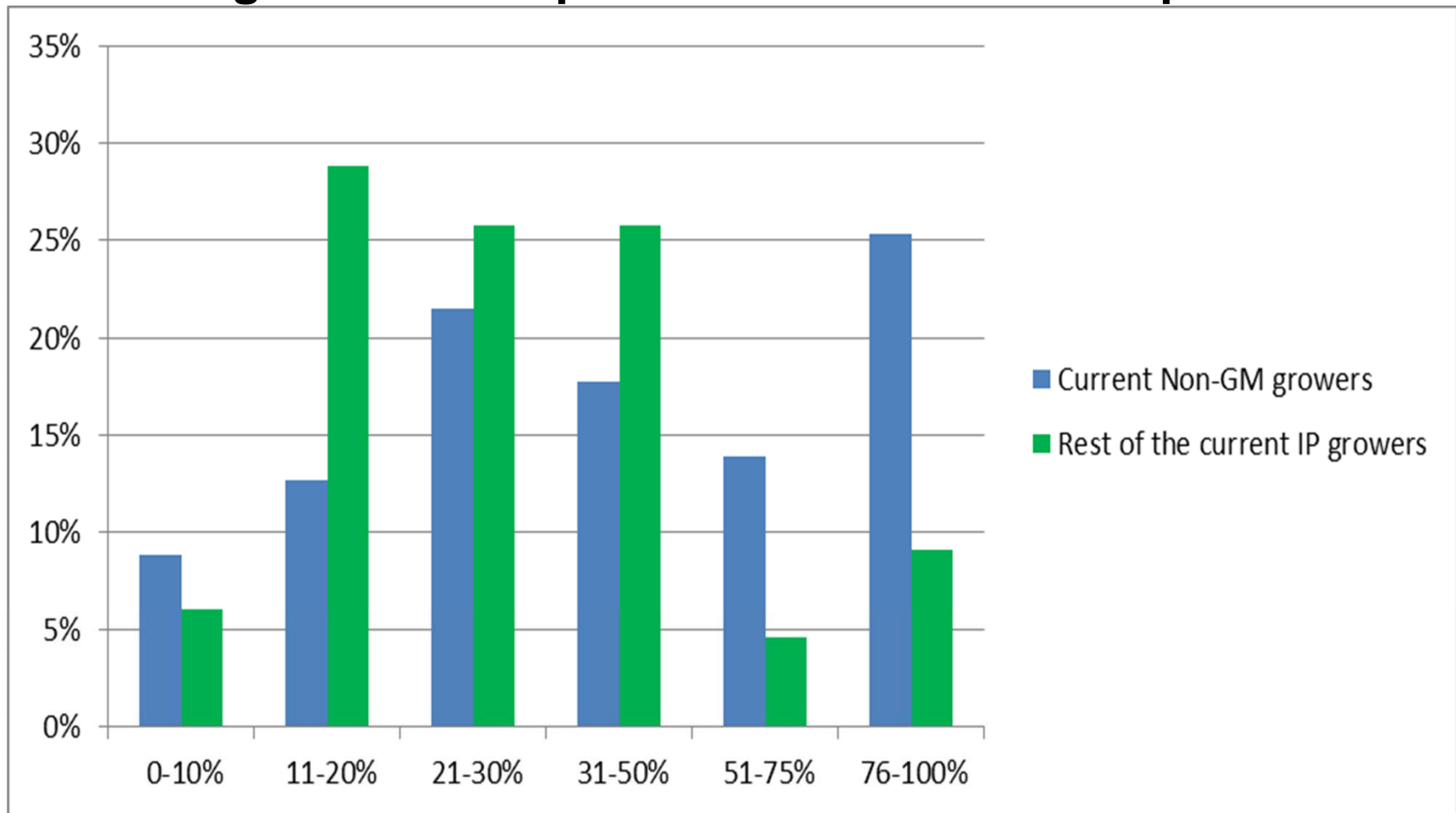
Which option below best describes your farm operations?				
	Survey 1	Survey 2	Survey 3	Survey 4
I have never grown IP crops	59%	58%	60%	57%
Currently growing IP crops	17%	18%	19%	17%
have grown IP crops in past but do not currently	24%	24%	22%	25%
have grown/growing non-GM corn	8%	7%	7%	9%
have grown/growing non-GM soybeans	9%	7%	6%	8%

Source: EMAC surveys 2013-2016; Kalaitzandonakes and Magnier, 2016

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Who's the non-GM crop grower?

Percentage of total crop acres used for non-GM production



Source: EMAC surveys 2013-2016; Kalaitzandonakes and Magnier, 2016

EMAC

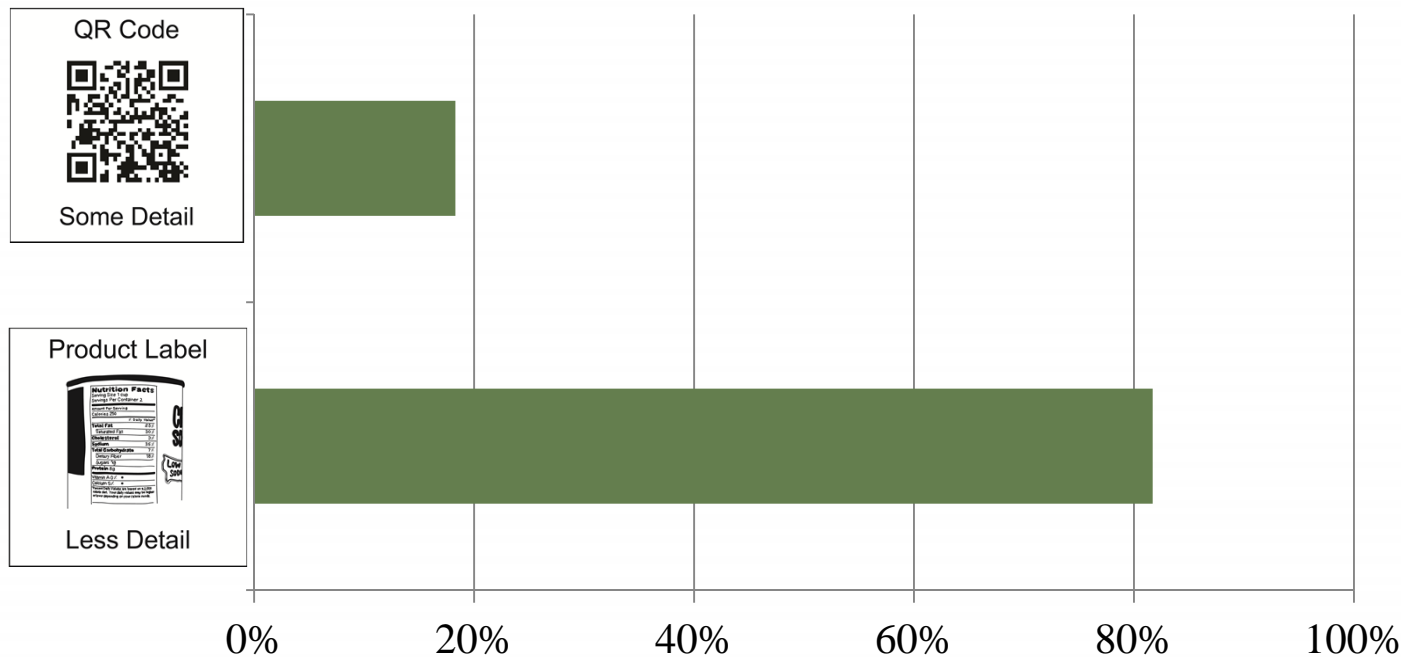
Consumer preferences and heterogeneity

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Consumer preferences for alternative means of information

Example: Q. There are different ways to provide information about groceries, some with more detail and some with less. Which one of these two do you prefer?

Preferred ways to get information about groceries..

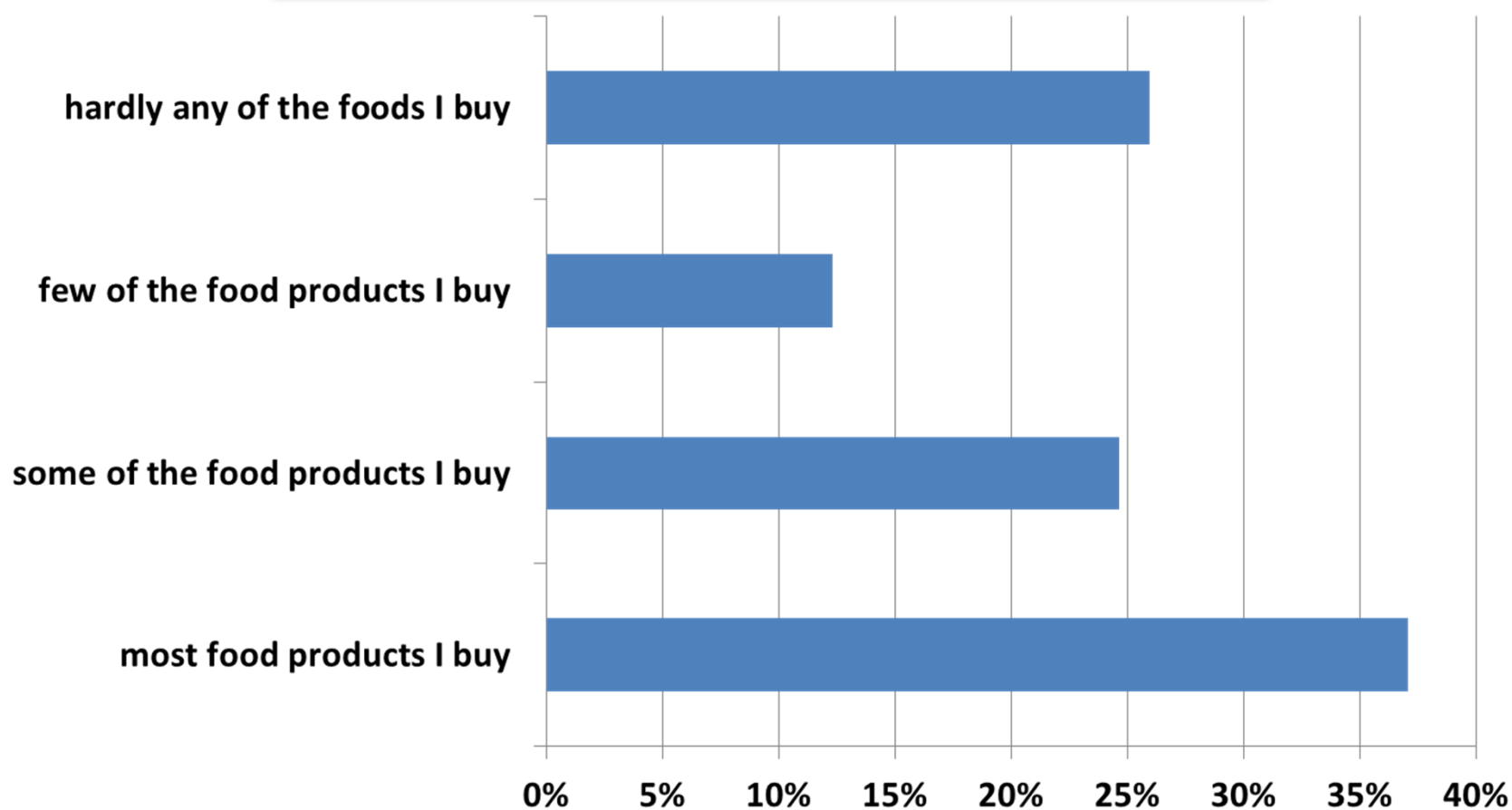


Source: 2017 EMAC survey – preliminary data

EMAC

Consumer preferences towards labels in general ...

I read the nutrition information label of ...

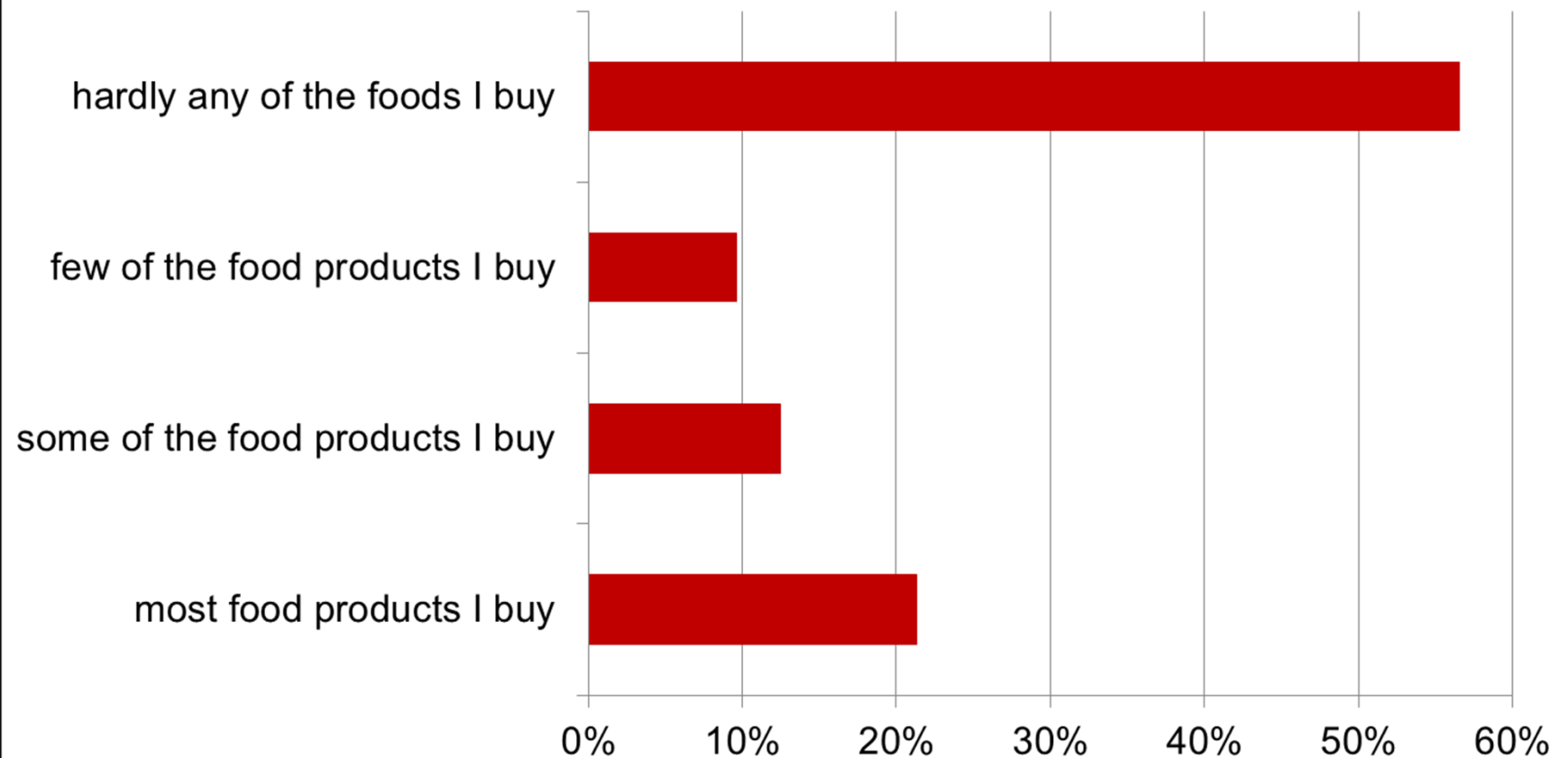


Source: 2017 EMAC survey – preliminary data

EMAC

Consumer preferences towards GMO labels

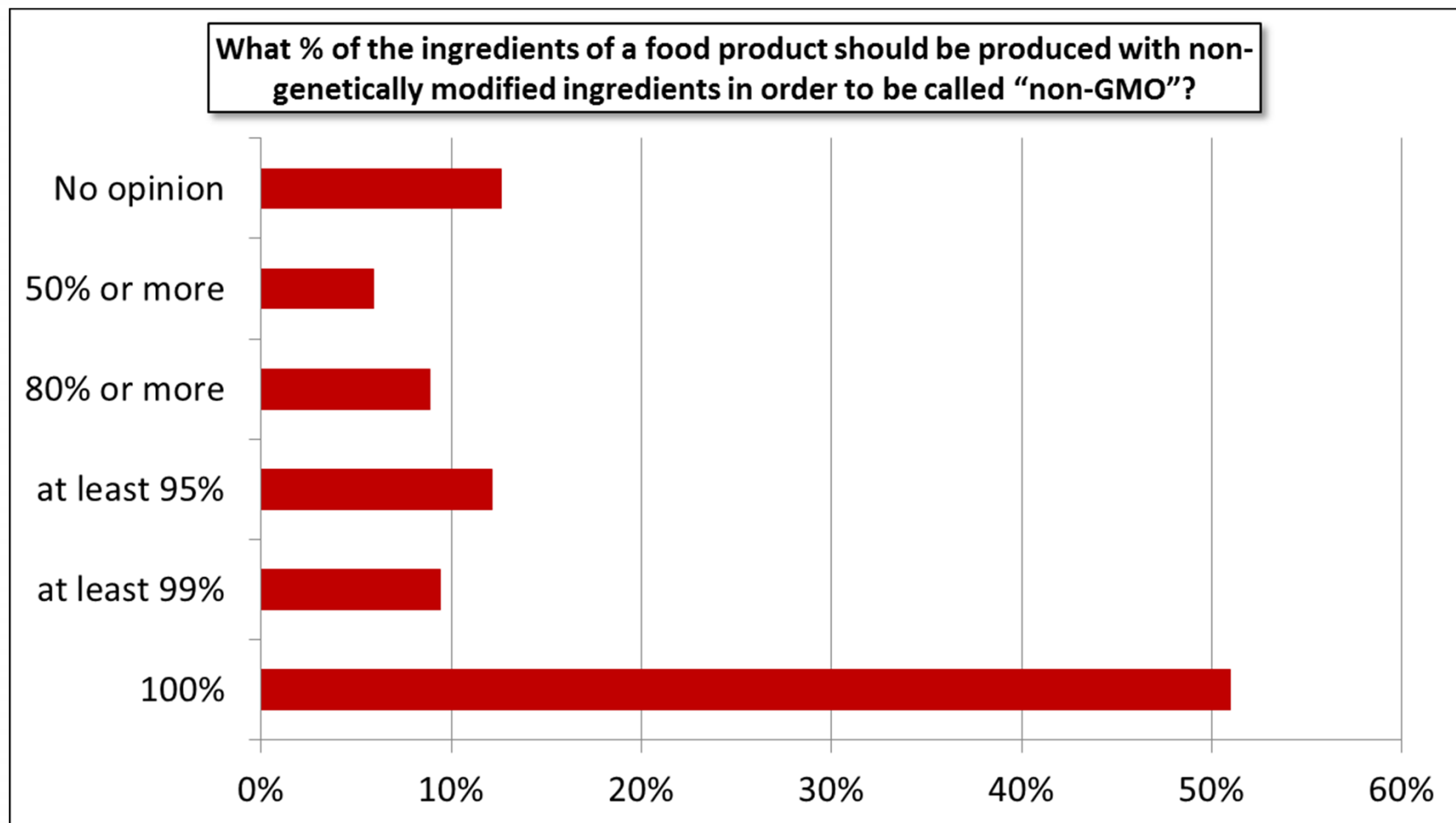
I look for the GMO content of ..



Source: 2017 EMAC survey – preliminary data

EMAC

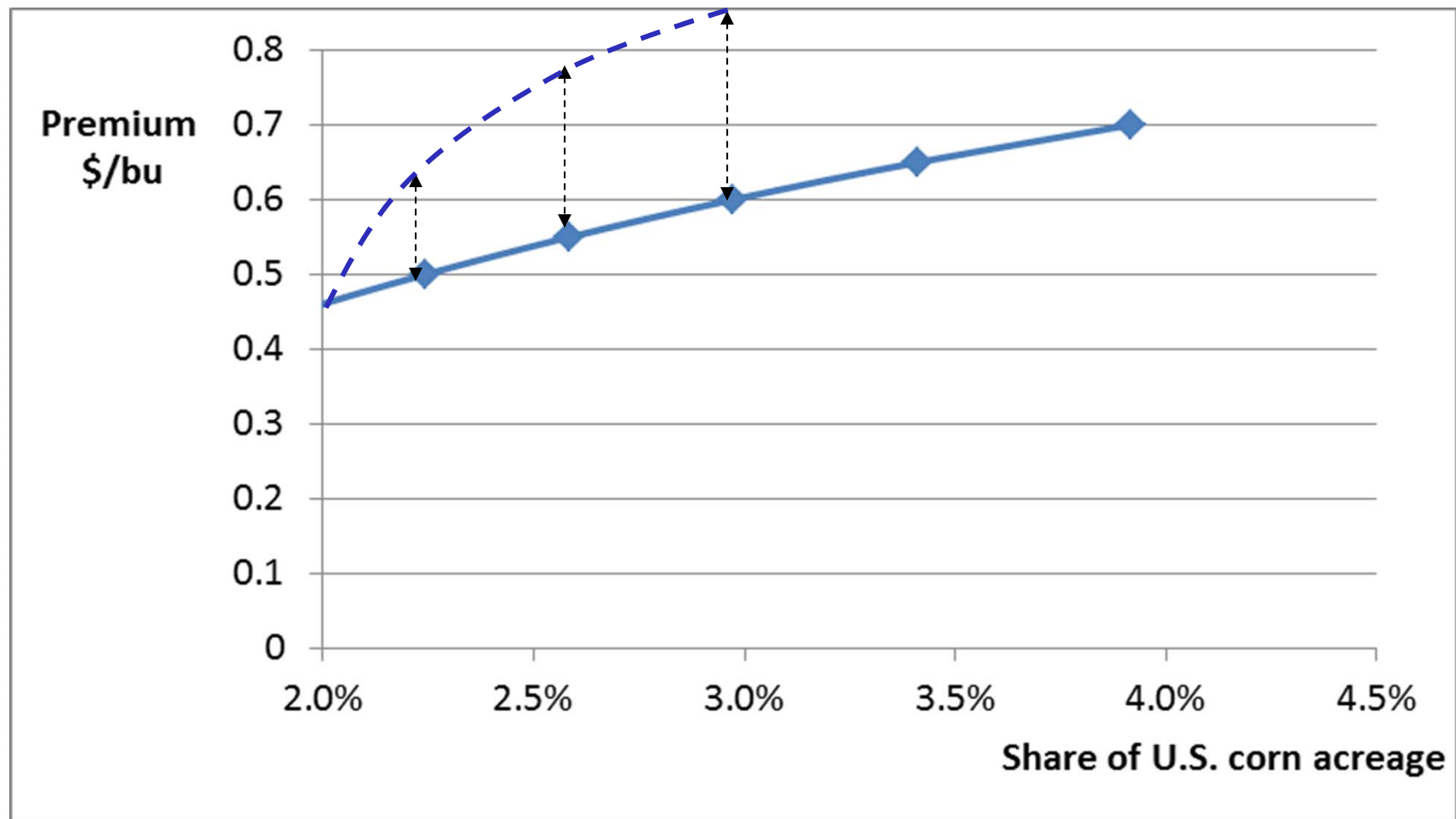
Consumer preferences for tolerance levels in non-GM foods



Source: 2013-2017 EMAC surveys – some data preliminary

EMAC

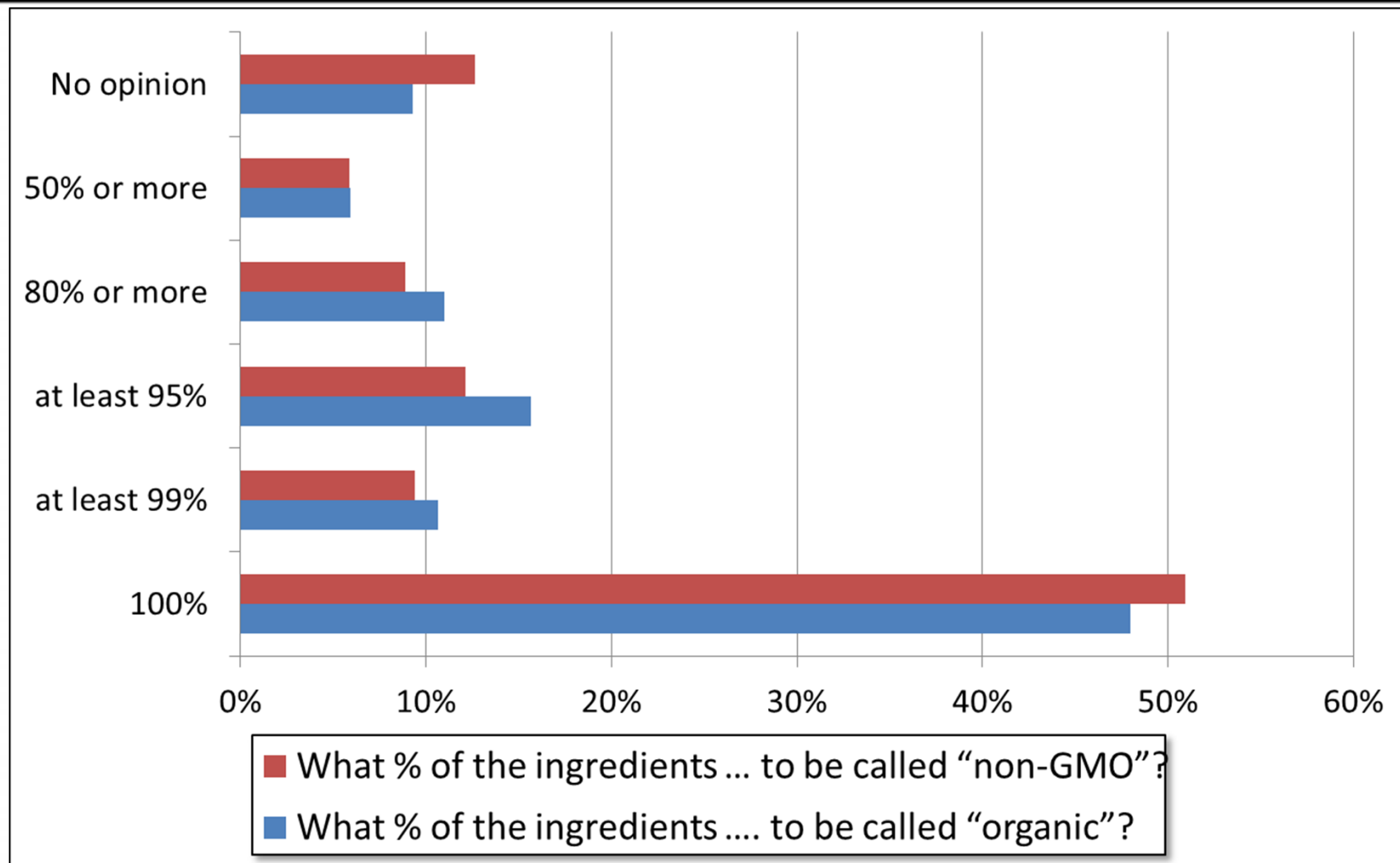
Impact of alternative tolerance levels in non-GM corn production



Source: EMAC surveys 2013-2016;

EMAC

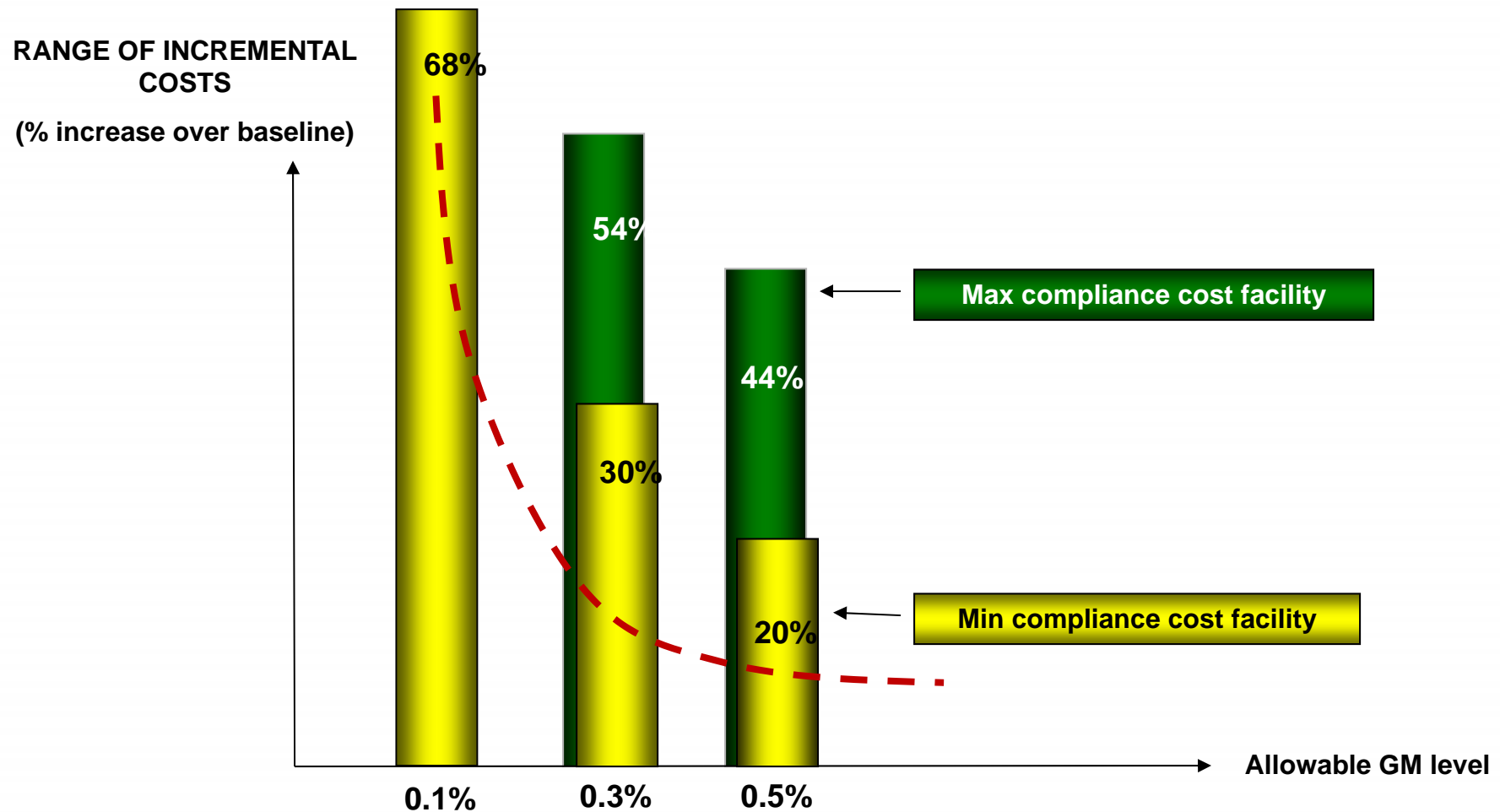
Consumer preferences for tolerance levels in non-GM foods & organics



Source: 2013-2017 EMAC surveys – some data preliminary

EMAC

Impact of alternative tolerance levels on seed production



Source: Kalaitzandonakes and Magnier 2013

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