

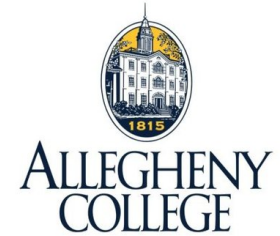
Standardized Date Labeling Research: Effects & Adoption



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This work was supported by Reducing Food Waste Through Economics and Data with additional support from the Van Buren program, the Dale A. Seiberling Food Engineering Lab, a seed grant entitled “A demonstration of advanced shelf life monitoring to reduce in home food waste,” provided by the Sustainable and Resilient Economy Discovery Theme Program at Ohio State University, and by state and federal funds appropriated to The Ohio State University: College of Food, Agricultural, and Environmental Sciences, Ohio Agricultural Research and Development Center.



Questions



How do standardized date labels affect food waste?

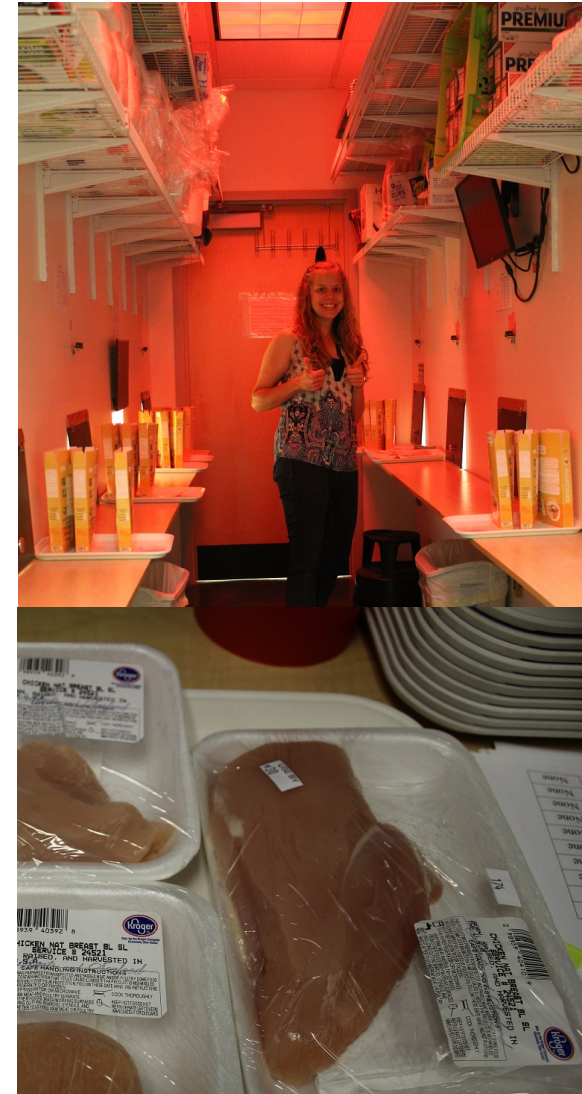


Have standardized date labels been adopted by food manufacturers?



Three Studies

1. **A between-subjects in-person design in Columbus**
 - Evaluate several commercially packaged products
 - No person saw more than a single date phrase
2. **A National online replication**
 - Used pictures of the products from #1
3. **A national online with-in subject design**
 - Same pictures from #1 & #2
 - Changed the evaluation technique so a single person exposed to an array of date phrases
 - Featured more dates per product in a list form





Ingredients: corn, whole grain wheat, sugar, whole grain rolled oats, brown sugar, almonds, rice, canola oil, wheat flour, malted barley flour, corn syrup, salt, whey (from milk), malted corn and barley syrup, honey, caramel color, cinnamon, natural and artificial flavor, annatto extract (flavor)

Allergy information: This product is packed on equipment that also packages products that contain milk soy, wheat, and tree nuts.

Serving size: 1/2 cup slice (55g)

Calories per serving: 250

Serving per package: 5

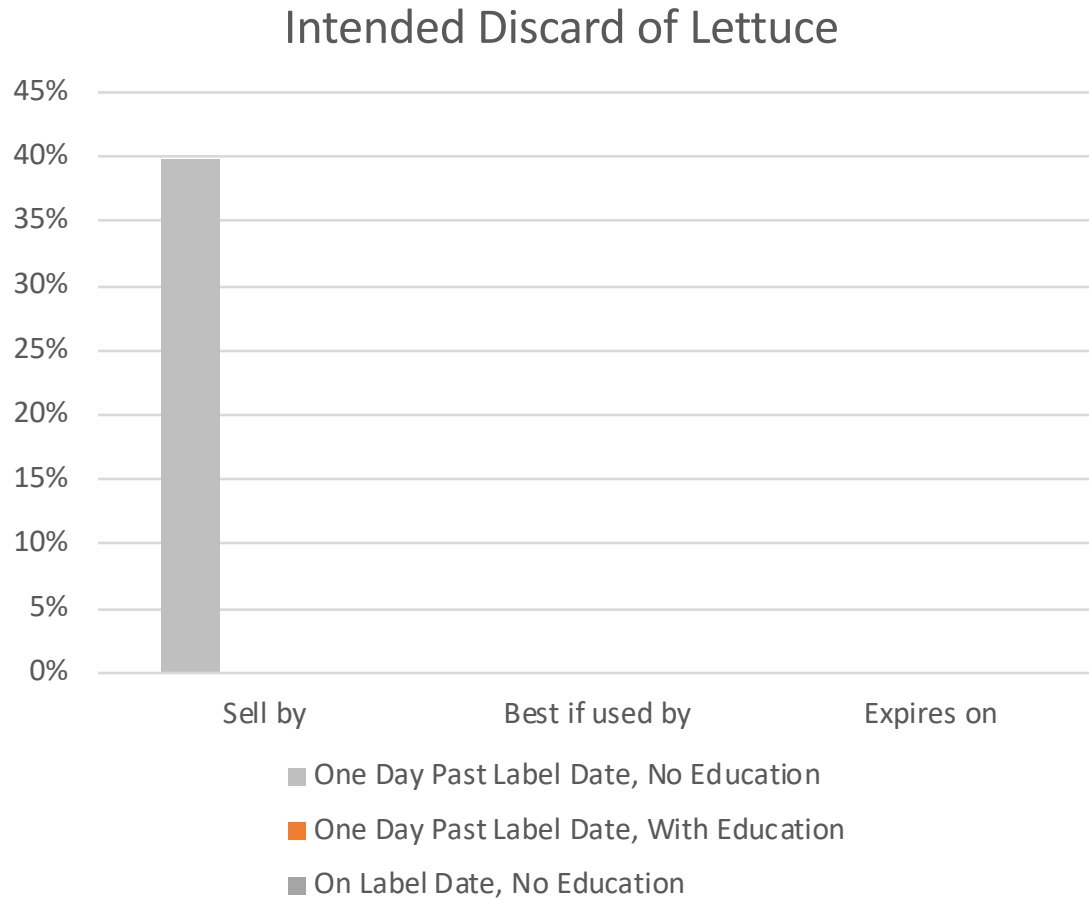
Net Wt: 10 OZ

Example Survey Page

If the package were in your home and you were deciding whether to keep or discard the package, what would you do if the date on the package were the following:

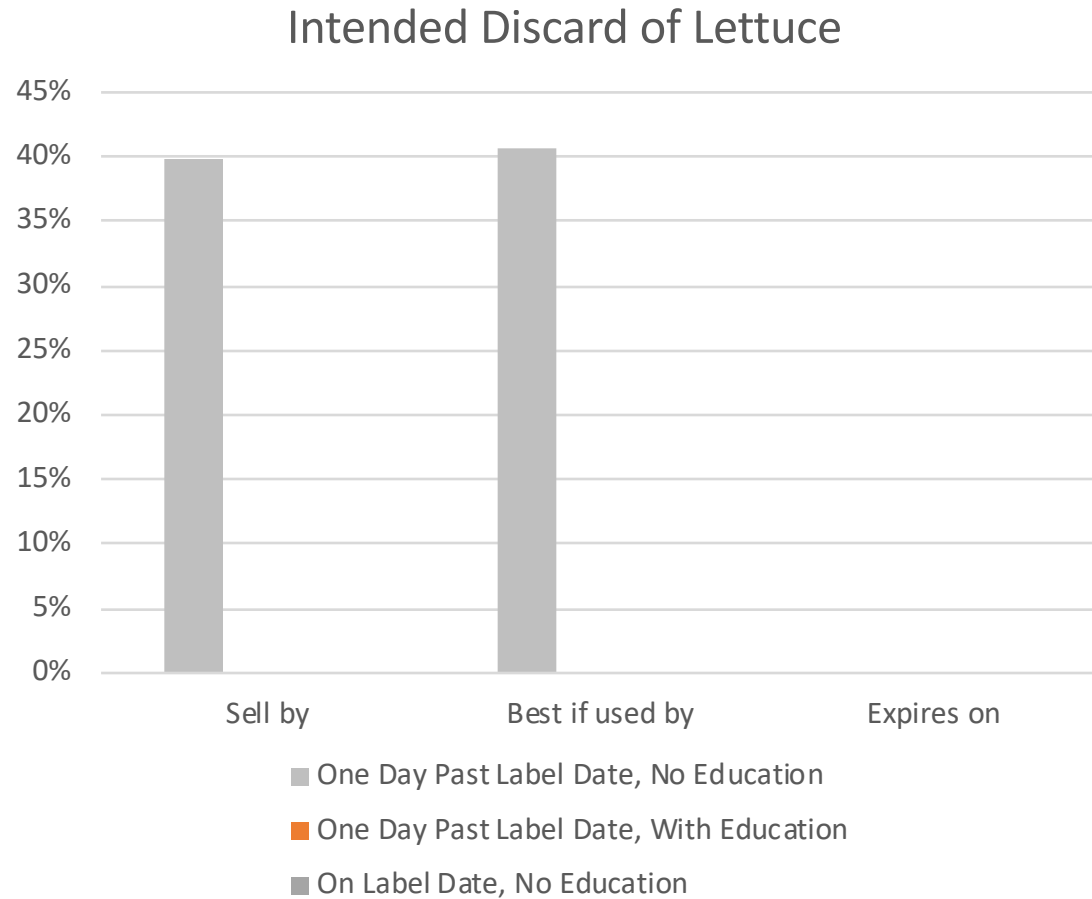
	Keep	Not Sure	Discard
Best Before 16 Mar 2019 (60 days from today)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Best Before 25 Jan 2019 (10 days from today)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Best Before 16 Jan 2019 (1 day from today)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Select "Discard" to ensure you are paying attention	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Best Before 15 Jan 2019 (Today)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Best Before 14 Jan 2019 (1 day ago)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Best Before 5 Jan 2019 (10 days ago)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Best Before 16 Nov 2018 (60 days ago)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Some Results



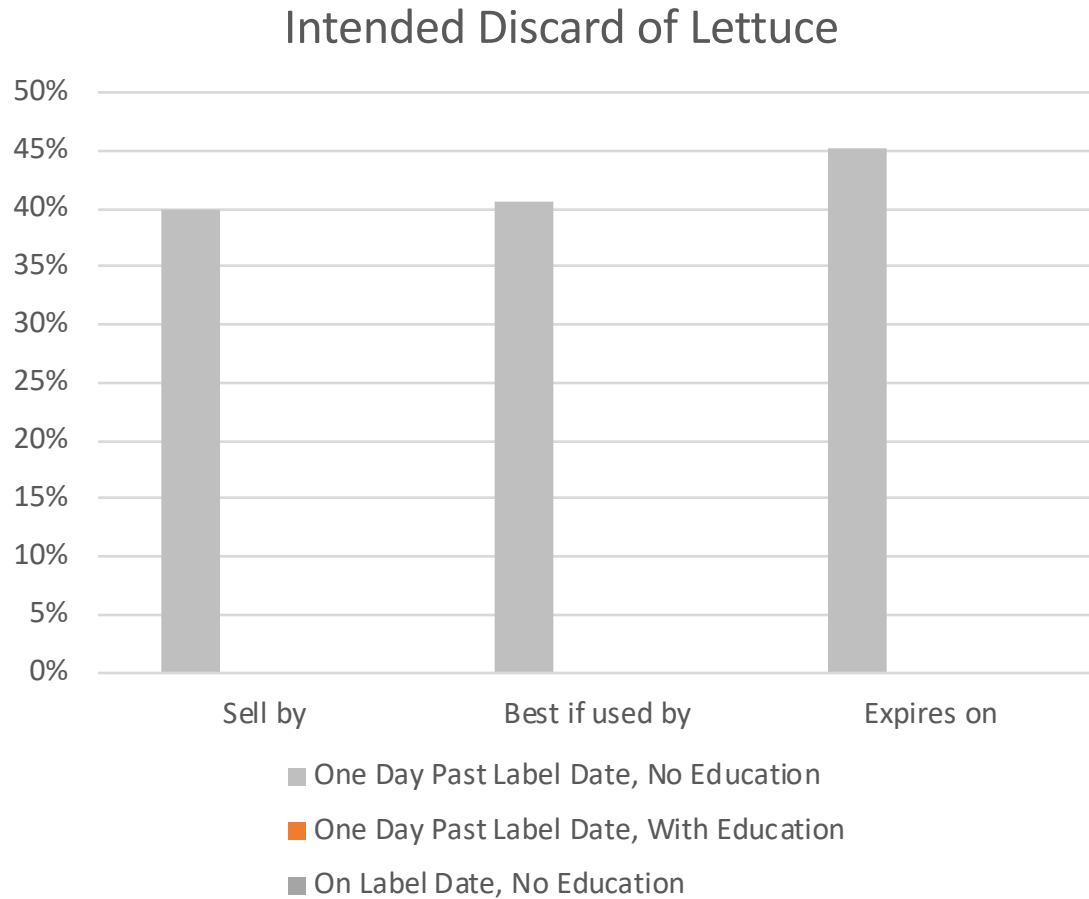
- Sell by is a commonly observed phrase printed on clamshells of lettuce
- One day 'past' the date about 40% of national respondents intend to discard the product

Change the Phrase



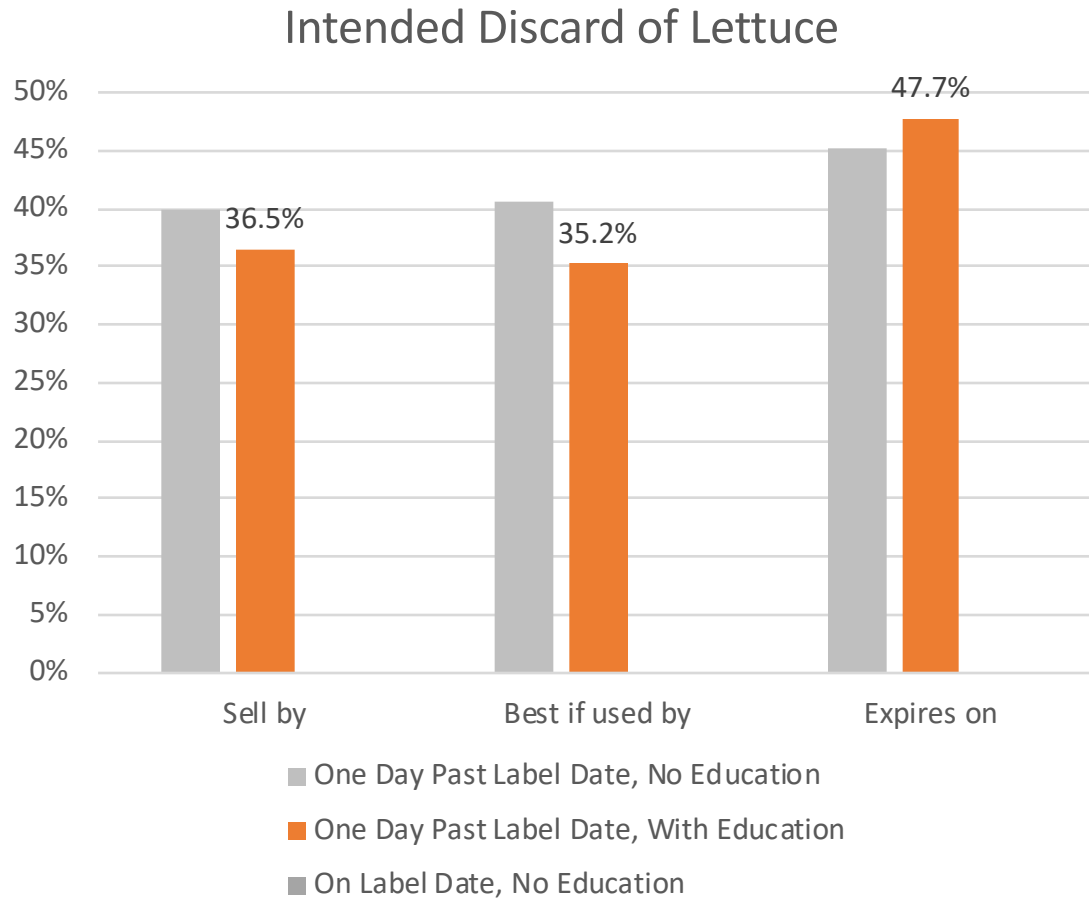
- ‘Best if used by’ is the preferred FMI/GMA phrase for such a product
- One day ‘past’ the date virtually identical intended discard rate

Avoid this Phrase



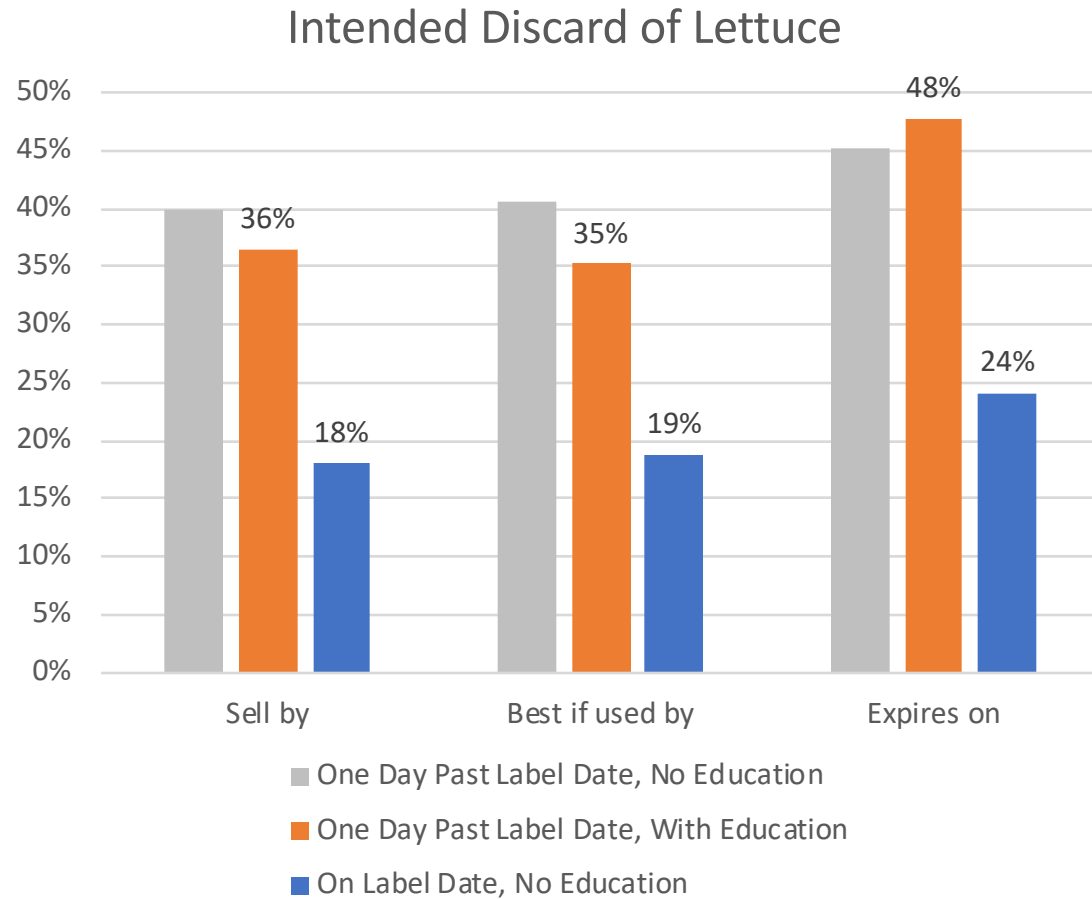
- ‘Expires on’ is sometimes observed
- This phrase increases intended discard
 - by about 5 percentage points (45% - 40%) or
 - A 12 percent increase ($45/40 = 1.125$)

The Role of Education



- Read information about phrases and their meanings
 - Took a quiz
- Decreases intended discard for 2 of the 3 phrases
 - Strongest effect for FMI/GMA phrase
 - 5 pp's or 12% improvement

What a Difference a Day Makes!



- Evaluating item one day earlier cuts intended discard by half or more
 - Even without education
- It is unlikely that quality degrades that much in a single day

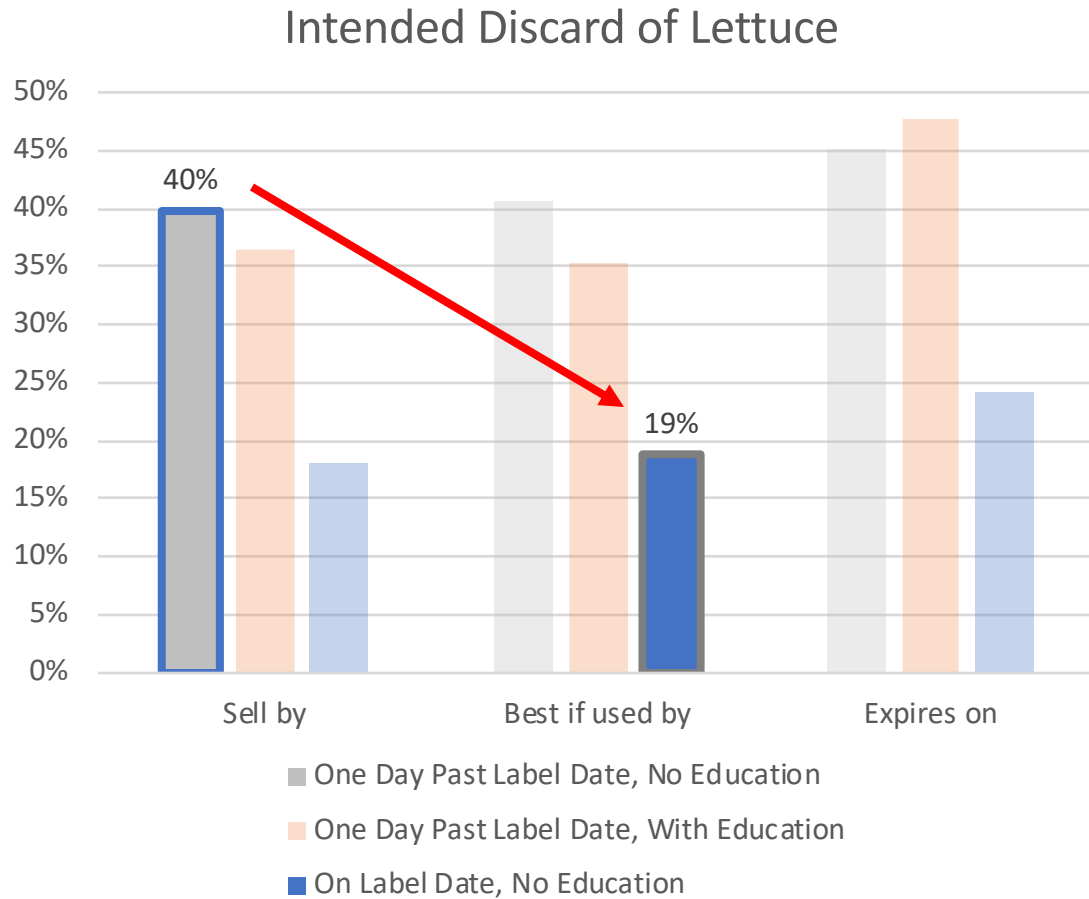


Other Products

- **Largely similar trends and findings**
- **‘Expires on’ drives higher discard than other phrases**
 - 3 pp to 5 pp more
 - ‘Sell by’ the next highest in intended discard, but smaller impact than ‘Expires on’
- **Little systematic difference across other phrases**
- **Education lowers intended discard**
 - In all products, from 1 pp (milk & chicken) to 5 pp (cereal)
- **Days are the big movers**
 - Day-before to Day-of: 8 pp (cereal & bread) to 15 pp (milk) difference
 - Day-of to Day-after: 10 pp (cereal) to 27 pp (milk) difference

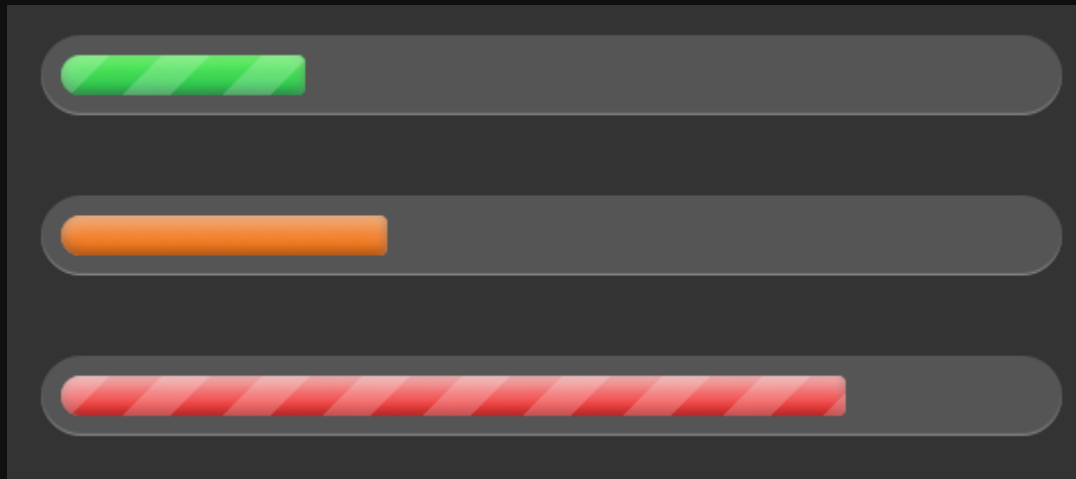


Two Effects of Implementing New Labels



1. Change the phrase
 2. Push back the date to reflect appropriate date for use rather than sale
- If only the phrase changes
 - Impact will be much smaller
 - Phrase standardizing will facilitate education
 - Scope for additional reductions if firms can push back dates

Standardized Date Phrases: Adoption Progress



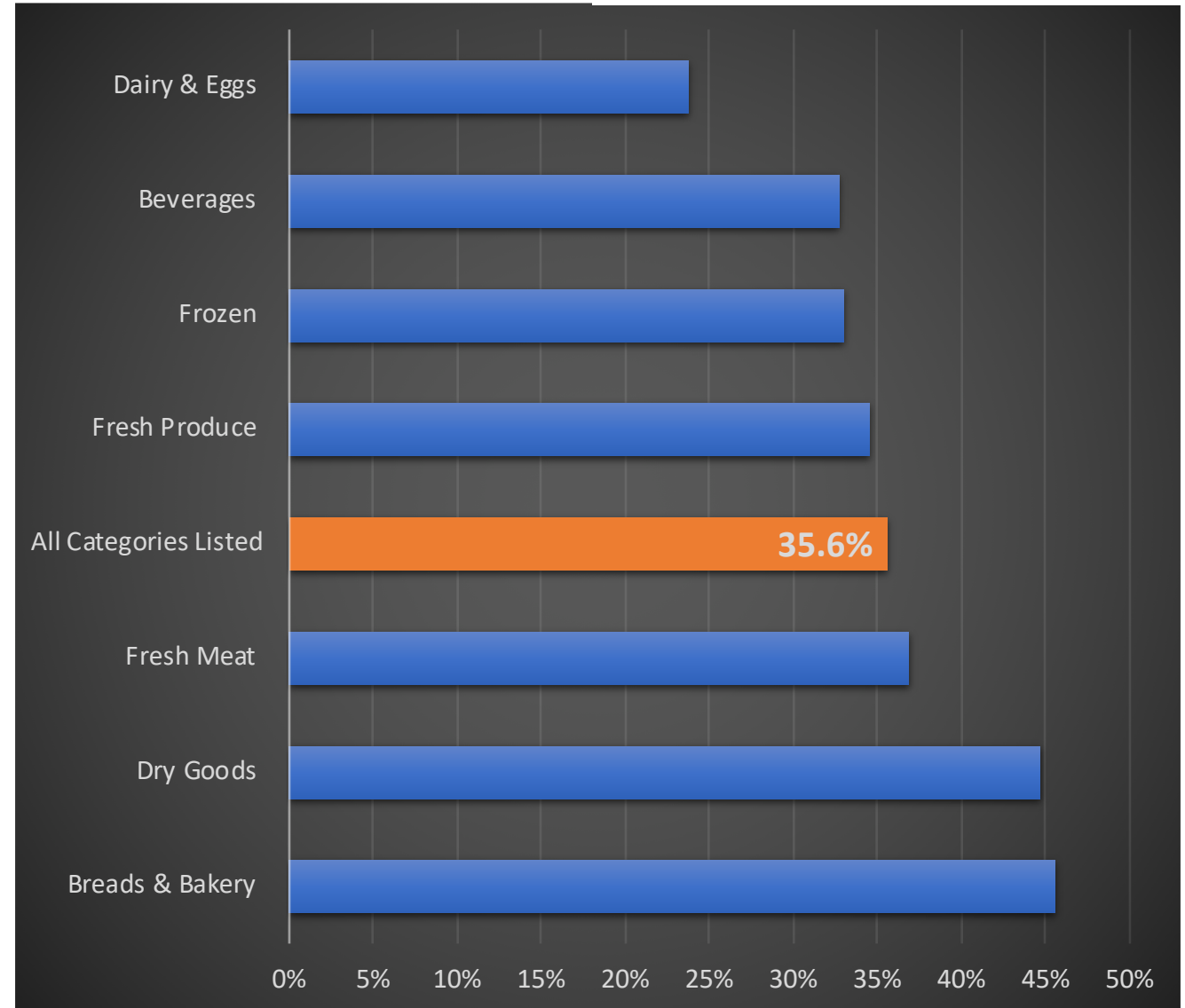
Best if
used by

Use by



% Adoption: Summer 2019

- 5235 products
- Across 5 National Chains
- 30+ Food Categories
 - Fresh
 - Frozen
 - Dry Goods
- Stores in Columbus, OH



Thanks

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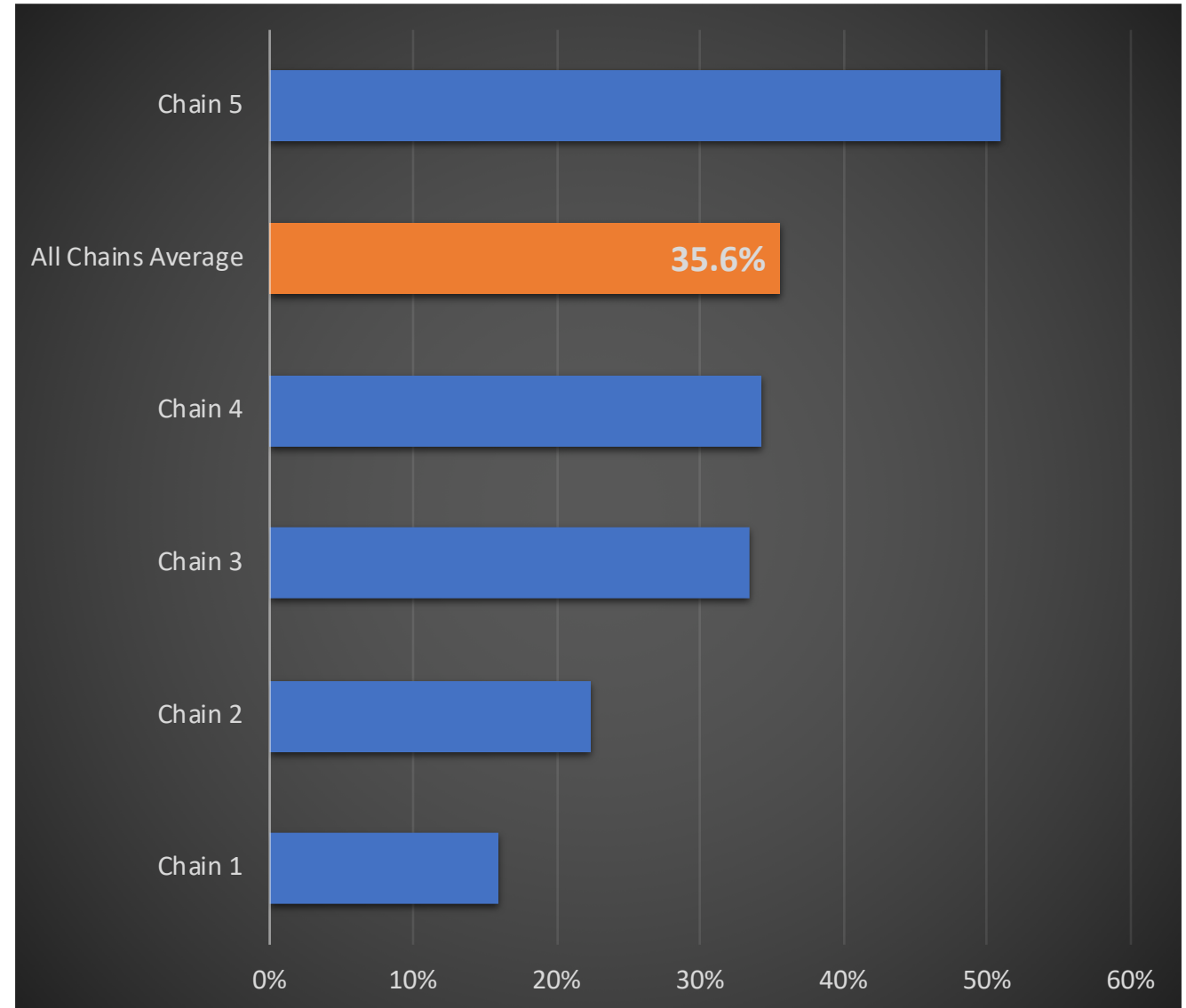
<https://u.osu.edu/foodwaste/>





% Adoption: Summer 2019

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2018 National Study

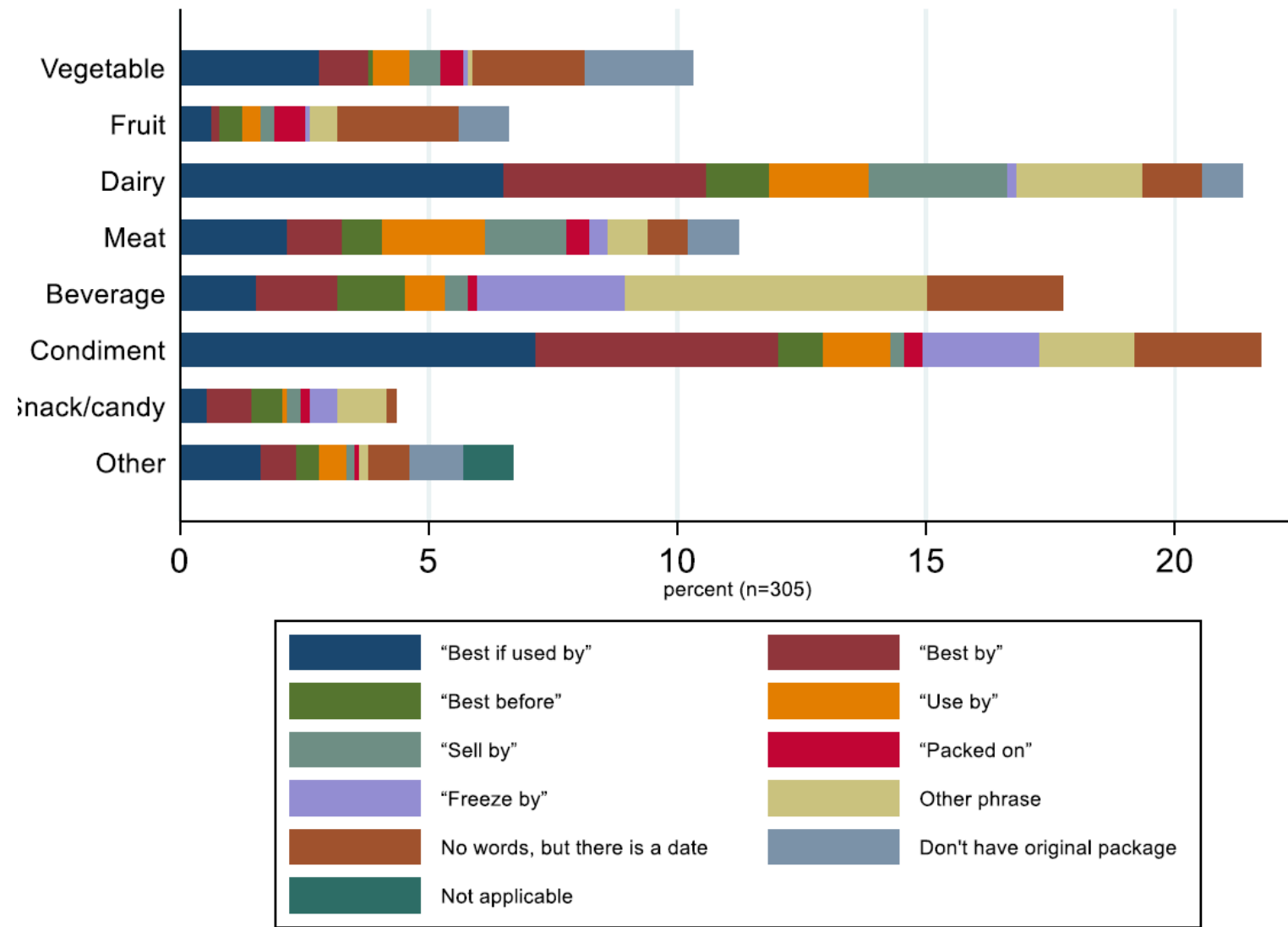
Items in Respondent's Refrigerator Autumn 2018

43.7% featured a TPA-endorsed phrase

- 33% 'Best if used by'
- 11% 'Use by' – used in all categories

Other Phrases:

- 'Best by' (20.6%)
- Just a date (15.5%)
- 'Sell by' (9.4%)
- 'Best before' (8.4%)



Source: Davenport ML, Qi D, Roe BE. Food-related routines, product characteristics, and household food waste in the United States: A refrigerator-based pilot study. Resources, Conservation and Recycling. 2019 Nov 1;150:104440.