NEW BELGIUM BREWING
REFILLABLE GLASS BOTTLES

We do not currently re-use bottles, nor are we aware of any other Colorado brewers who do. However, Bayern Brewing in MT and Straub Brewery in PA are experimenting with returnable projects. And a recent startup in CA, Conscious Container, is pushing the movement forward along with the Oregon Beverage Recycling Cooperative.

This issue is one that is near & dear to our hearts. Glass bottle production is the largest source of greenhouse gas emissions resulting from our beers. We are believers in the concept of Extended Producer Responsibility, which essentially argues that the producer of a product should take responsibility for the full life-cycle of their products/packaging, and we certainly do not want our bottles' lives to end in a landfill! Because of this, we co-founded the Glass Recycling Coalition, and are helping to significantly increase glass recycled in the U.S.. Glass can be recycled endlessly in the circular economy, and increasing recycled content reduces GHG emissions. Reusable bottles, however, have the potential to reduce GHG emissions even further. We have counseled a number of initiatives striving to restore a returnables infrastructure in the U.S.. As with some other environmental topics, the answer is complex.

Here are a few hurdles we have come across while working toward returnables:
- **More raw materials.** Returnable bottles require more raw materials because they must be durable. Therefore, they are typically heavier and take up more space on a truck (so they require more fuel than non-returnable bottles).
- **Cooperation among Distributors, Retailers & Consumers.** Many customers may not return their bottles, which would result in a thicker bottle (more glass) ending up in the landfill. When the bottles are returned, the retailers & distributors need to have extra space to store them until they are picked up. This can be messy and problematic in their stores and warehouses. Facilitating the return also requires extra labor on their part. While they must offer more space and more labor to aid in this process, they are not receiving payment for their effort.
- **Transportation.** As mentioned above, the beefier bottles require more fuel & more transportation on their way out. They also require a trip back to the brewery that wouldn't exist otherwise. This could, however, be mitigated by the industry adopting a generic bottle so that the bottles could be returned to a local facility and resold in the vicinity rather than requiring the trip back to their brewery of origin. This leads to yet another hurdle in convincing brewers (including ourselves) to give up unique bottles that they believe help to distinguish them. The initiatives we highlighted above are having some success in piloting models like this and we are tracking closely with their successes and challenges.
- **Washing.** Washing a bottle requires caustic, water and energy. It also requires a bottle washing machine that has been estimated at $1 million. A machine must check the quality of every single bottle to ensure it is not chipped, does not contain random objects like cigarette butts, for example, along with hundreds of other possible problems.
- **Equipment.** We would have to make some adjustments to our packaging line to fill returnable bottles as they are larger than non-returnables. However, this is a very minor hurdle.

With all of that said, a returnable bottle can still be environmentally superior to a nonreturnable bottle depending on the following criteria:

- **Distance Traveled.** Certainly the greater the distance traveled, the more fuel required to transport the larger bottles back and forth. A 3rd party player that collects, cleans, and resells a generic bottle – that all breweries adopt – would help reduce distance traveled.
- **Trippage.** Trippage is defined as the number of times the bottle is actually reused before it is lost, damaged or discarded. There is a break-even point, where a trippage less than "x" states that a non-returnable bottle would be environmentally superior and a trippage greater than "x" considers a returnable bottle a better choice. This will vary according to location as it depends on distance traveled. If we can't ensure the thicker glass bottles will be returned multiple times, we could even worsen the environmental impact.

What needs to happen for returnable bottles to become a reality again in the U.S.?

- Since the national support for returnables dissolved in the 1960's, the glass collection infrastructure in most states is non-existent. Large investments would be required to restore collection/reuse on a national level. And as we mentioned, we need a national program to realize the environmental benefits. It's not impossible, but since the upfront cost is so significant, we would need (1) extremely successful pilot projects to prove the concept, (2) brewers to give up their custom bottles and move to a standard bottle, and/or (3) national legislation to demand and enforce returnables.

Are you joining or starting a pilot program?

- We've been approached by several 3rd party players over the years and asked to participate in local pilot programs. We were very excited to commit to these pilots, but unfortunately those Colorado-based startups have dissolved. Although we don't have any local pilot programs to join, we're closely tracking the progress being made by Conscious Container and OBRC. We don't plan to start a pilot program because we feel a successful reintroduction of returnables will require a 3rd party approach that creates generic bottles and collects/cleans/resells across the nation.

On a related note, you might find our post re: cans vs. bottles interesting (Link to BOTTLES vs. CANS)
And here is a beer blog post about returnable bottles in the U.S. with some interesting comments (Link to http://beervana.blogspot.com/2012/08/can-america-return-to-returnable-bottles.html)

We hope this info has given you a little insight into what we've learned on the topic. We still think the discussion is a legitimate one and hope to see it evolve in the future.