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Eco-Ag

Zero Waste

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The session that I attended and chose to present on was on the topic of zero waste. Zero waste is defined by diverting greater than 90 percent of all waste produced in a given region from being burned or incinerated by using biological and natural systems to recover usable resources.

The first presenter discussed what needs to happen on a city, state, and governmental level between producers and consumers to achieve zero waste status and he also spoke of projected goals for the state of California. However the presenter did not get too much into how this was going to be achieved, other than needing to work locally with producers to produce more efficient products.

Waste is a byproduct of inefficiency and in order to reduce waste efficiency needs to be increased. The speaker noted that for every ton of municipal waste that is created 71 tons of industrial wastes are also produced. Therefore the goal needs to be the redesigning of products and processes to fit this new vision, as well as more efficient resource recovery centers to reuse and redistribute usable resources which will in turn create more jobs.

The most interesting part of this session was a video illustrating a permaculture design starting at a beer brewery in Fiji. All the spent grains from the brewery were delivered to a local educational farm where they were inoculated with a mushroom species. This not only produces edible mushrooms, but the process breaks down the indigestible lignin in the grain, converting it to a digestible form which was then fed to the hogs and chickens. The manure from the livestock is captured and then produces electricity via a methane digester. The manure is then separated, applied to the fields, and the remaining water is transferred to ponds where algae absorb the excess nitrogen before reentering the nearby river. The algae also serve as a feed stock for fish production which produces enough fish to provide the college with a stable food supply.

This provided a very good example of waste diversion while creating many usable products in the process. However, there needs to be more talk between producers, farmers, and consumers before we can expect to do anything comparable for all production.