Seymour Union dining venues now recover 95% of organic waste!

Knox College is proud to have successfully implemented a comprehensive organics recovery system in Seymour Union. As of Fall 2014, Knox is successfully composting 100% of our pre-consumer waste (scraps from food prep), 95% of our post-consumer waste (food left on plates after dining), and 90% of the paper dishware used in the Gizmo Snack Bar. Compost collection is even available at many special events where food is served.

How does the system work?

Pre-consumer waste:

During food prep in the kitchen, employees are trained to separate compostable scraps from recyclable and landfill streams. Bins lined with bright green bags make it easy to see where organic waste is collected, to be added directly to the compost bays.

Post-consumer waste in the Oak Room and Hard Knox Café:

After visitors dine in the Oak Room or Hard Knox Café, they place their plates on a conveyor belt. At the end of the belt, a dishroom employee scrapes the food scraps, napkins, and other compostables from the plate into a channel of rinse water, which passes through the pulper. Much of the water is extracted from the ground-up organic waste, and the output from the machine is a damp pulp of finely-ground organic waste.

This pulp is placed in a dehydrator overnight. The dehydrator sterilizes the post-consumer waste and removes most of the moisture, which is important in the context of post-consumer waste, as soil organisms are less well-equipped to rapidly break down processed foods, oils/fats, and meat products.

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Post-consumer waste in the Gizmo Snack Bar:

The Gizmo is the only sit-down eating environment at Knox where the patrons handle their own waste. Here, they find a row of three bins, labeled “landfill,” “recycle,” and “compost.” An illustrative board above each bin guides visitors as to the types of items can be placed in each bin. Besides food and napkins, patrons can also compost their paper plates, cups, boats, condiment cups, and other paper items. At the end of each day, the contents of these bins are brought to the dishroom, and run through the pulper.

Special Events:

At Knox special events where food is served, a compost receptacle can be made available. This option was piloted in April during admitted student days and Earth Day. Because composting is a new practice for many, compost bins at special events are generally accompanied by a “compost ambassador,” who helps guide visitors in proper waste separation.

The compost bays:

In an average day of serving over 1900 meals, dining services generates 300 lbs of pre- and post-consumer organic waste. The output from the pulper and the dehydrator are collected Monday through Friday, and carried to the compost bays, just down the hill from the Knox Farm. The two bays, each measuring ten by eight feet, process the organic waste from Seymour Union as well as landscaping waste from the Knox grounds. This blend of materials yields a high-value compost product for use on the Knox Farm.

Making it happen:

The success of this program is due to many contributing factors, including a whole systems-approach to composting at Knox, and active collaboration between Dining Services, the Facilities Department, Student Senate, and the Office of Sustainability.

Dining services and Facilities have created extra employment opportunities for student workers to handle the compost, and exhibited remarkable flexibility in handling the challenges of the early stages of the system. Facilities allocated space for composting, constructed the outdoor compost bays, and continues to contribute the labor and equipment necessary to transport and occasionally turn the compost. Knox students advocated for organics recovery on campus, and through Student Senate, purchased the dehydrator that makes post-consumer composting possible. The Gizmo staff rearranged their public waste collection system, and worked closely with the Sustainability Office to troubleshoot challenges throughout the early days of the program.

Constant changes are underway, to increase the range of products on campus that can be composted or recycled, and to reduce unintentional contamination of the compost system. For example, the transition to condiment pumps in place of individually packaged condiments greatly reduced both contamination of the compost stream, and waste in general.

This is a great accomplishment for Knox College, and model of exceptional systems-thinking. Congratulations to all who worked together to make it a success!

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