



FROM WASTE TO COMPOST

Revolutionizing Diaper Disposal for a
Greener Future

Written By Hannah Shelly

From Waste to Compost:

Revolutionizing Diaper Disposal for a Greener Future

Written by Hannah Shelly, Marketing Manager at Diaper Stork

Our diaper composting pilot program is off and running and is now in its third installment of testing! If you're new here or haven't heard, Diaper Stork is working to develop a sustainable answer to disposable diapering in the PNW.

Disposable diapers make up nearly 3% of all waste and are the third largest single-use item in landfills each year. They take over 500 years to degrade and contribute to the over 8,000 tons of diaper waste making it into our landfills in King County alone each year—an amount equal to around 13,000 Orcas!

Parents are seeking convenient additions to their cloth diaper service, prompting many families to turn to plant-based, disposable diapers. While these plant-based diapers allow for eco-minded disposal and waste management, many still make it into our landfills. Even the portions of these diapers made of theoretically compostable materials cannot biodegrade unless they are in controlled conditions and remain intact for many years.

The ability to compost diapers could significantly reduce waste in landfills; however, a local, sustainable solution has yet to exist. Thanks to a King County Solid Waste Division grant—Diaper Stork is proud to take part in the fight to reduce this overwhelming amount of diaper waste reaching our landfills each year with a small-scale plant-based diaper composting pilot program

Over the last several months, as part of our composting pilot, Diaper Stork has sent out and collected thousands of plant-based diapers throughout the greater Seattle area. After collecting and processing used products, we've taken these diapers to a local composting facility, mixing them with soil and other plant material with air pumped into the container to create an aerobic environment to biodegrade. Throughout the study, we experiment with different compost ingredients, perform laboratory analyses, and evaluate the operational feasibility of large-scale diaper composting. We aim to process several tons of disposable plant-based diapers as part of our grant project—turning them into organic compost that can enhance local soil health for gardens and farms!.

Our most significant challenge thus far has been biodegradability and the ability to process plant-based diapers efficiently. Despite the sustainability claims made by many companies with eco-friendly products, all disposable diapers, even plant-based ones, still contain plastic. The added challenge caused by plastic makes it only possible to turn these diapers into compost with additional steps to remove non-biodegradable materials. Removing plastic from the end compost is critical for a successful solution. Currently, we are testing multiple ways to shred and break down diaper materials. However, in addition to our King County Solid Waste Division Grant, Diaper Stork is also participating in a Washington Renew Seed Grant from NextCycle to create a plastic-free, all-natural diaper insert made entirely from plants. Unlike other plant-based disposables on the market, our diaper insert will be the first completely biodegradable disposable solution—free of plastics, SAP, and capable of being entirely composted!

During our project's following stages, Diaper Stork seeks participants to test and provide feedback on a new biodegradable disposable diaper insert. As a participant, families will receive a 1-week supply of our newly developed, 100% biodegradable disposable diaper inserts and diaper covers to add to their regular cloth service. We will provide collection, disposal, and composting of used inserts through our [diaper composting pilot program](#).

As part of Diaper Stork's mission for a more sustainable future, we want the whole community to share the benefits of waste reduction—regardless of barriers related to socioeconomic status, geography, race, language, or other factors.

As we continue our projects, we hope to gain valuable insight into the diaper composting process without compromising our standards for sustainability and equity. We envision a local, sustainable, and equitable option that keeps disposable diapers out of landfills and transforms them into usable compost products.

If you want to learn more or have ideas for ways to serve all Seattle-area families best—let us know! We encourage any feedback and ideas on incorporating equity and social justice principles into our vision and plans for future programs.



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