

Agrivoltaics at the Rosebud Continuum Sustainability Center

The first time I visited the Sustainability Education Center was for a Concepts of Sustainability class trip. When touring the compost toilets, a comment was made addressing how bamboo toilet paper, better than conventional toilet paper, was still not the ideal solution for wiping. Later, I learned more about the potential of bamboo for a Bioresources for a Sustainable Future class project. I learned that while some bamboo paper products can be manufactured sustainably, others are marketed through greenwashing and are sourced from unsustainable forest operations and toxic manufacturing processes. Implementing agrivoltaics on site by using the grassy area between the ground-mounted solar panels to grow the perennial plant Blue Spur Flower (*Plectranthus barbatus*) may be a solution.

Blue Spur Flower

Soft velvet-like wide leaves can be used as sanitary tissue

Can be used inside the compost toilet or for other cleaning purposes

Sun and partial shade tolerant

Drought tolerant

Prolific root system may improve soil quality



Photo: [Little River Cooperative](#)

Agrivoltaics

PV panels provide partial shade for crop

PV panels mounted over a crop understory benefit from cooler temperatures improving system performance

Shading from panels and crop understory promotes water retention in soil and reduces water vapor emissions



Photo: [DOE InSpire](#)

Check out this Roblox model of what the operation could look like!

<https://www.roblox.com/games/10878898086/Agrivoltaics-at-Rosebud-Continuum>

We know that implementing strategies that are “less bad” is not good enough...

Therefore, growing Blue Spur Flower in an agrivoltaic operation at the Rosebud Continuum to replace bamboo toilet paper is a “potential beneficial action” rather than a recommendation. Benefit assessments must be evaluated.

Considerations

Distance from agrivoltaic operation to compost toilets

P. barbatus should be planted as a monoculture to prevent competition with native fauna

If a mixed-crop operation is preferred, *P. barbatus* should be in separate planters or containers

Stakeholder opinions and preferences

Bibliography

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