



# Sustainable Technology Evaluation and Demonstration (STED) Program

## Biobased Dust Suppressant Demonstration



### Technology Description

Biobased dust suppressant products applied to ground surfaces to improve stability and reduce dust generation; materials such as plant oils, glycerin, lignin, and saccharides replace fossil fuel-derived and salt-based components.

### Potential Impact

- Improve dust mitigation, resulting in environmental and safety benefits (e.g., reduced brownout accidents).
- Reduce negative impacts resulting from environmental exposure (e.g., runoff).
- Reduce equipment metal corrosion and road surface slickness compared to salt-based suppressants.
- More resistant to some weather and vehicle impacts compared to synthetic polymer-based suppressants.

### Benefits

- Non-toxic and biodegradable; little to no Volatile Organic Compounds.
- BioPreferred Product Category: expand markets for domestic agricultural products.

### Demonstration Sites

- Edwards AFB
- Fort Irwin
- NASA AFRC, Palmdale
- MCAGCC 29 Palms

### For additional information please contact:

- [osd.mc-alex.ousd-a-s.mesg.dod-sted-program-mbx@mail.mil](mailto:osd.mc-alex.ousd-a-s.mesg.dod-sted-program-mbx@mail.mil)
- Department of Defense (DoD) Sustainable Products Center (SPC):  
<https://www.denix.osd.mil/spc/index.html>



Edwards Air Force Base, Dust Generation at 35 mph  
Prior to Application (Top) and 6 Months After Application (Bottom)