SMOKE MANAGEMENT ACROSS THE LANDSCAPE

Scott Goodrick
USDA Forest Service Southern Research Station

Arkansas, Oklahoma & Texas Stateline Meeting
February 27-28, 2018
SMOKE MANAGEMENT
PREDICTING SMOKE AT NIGHT
PREDICTING SMOKE AT NIGHT
PREDICTING SMOKE AT NIGHT
https://cefa.dri.edu/PB_Piedmont/
PLANNING TOOL FOR SMOKE AT NIGHT
ASSESSING FUEL LOADS
MODELING AIR QUALITY IMPACTS

BlueSky Framework

Met
- WRF
- MM5
- GFS
- NAM
- Other

Fire Info
- SMARTFIRE
- ICS-209
- Rx Sys
- Manual
- Other

Fuels
- FCCS
- NFDRS
- Hardy
- LANDFIRE*
- Ag*
- Other

Total Consumption
- CONSUME 3
- FOIEM
- FEPS
- EPM
- ClearSky (Ag)*
- Satellite*
- Other

Time Rate
- Rx / WF
- FEPS
- FOIEM
- EPM
- WRAP
- Idealized
- Manual
- Other

Emissions
- FEPS
- Literature*
- EPM
- FOIEM
- Other

Plume Rise
- Briggs
- Multi-core**
- Daysmoke**
- Other

Dispersion / Trajectories
- CALPUFF
- CMAQ
- HYSPLIT
Linking Fire Behavior & Smoke
New partnership with CDC
Examine trade-offs between wildfires and prescribed fires
Multiple studies in planning stage
  2007 Okefenokee Fires
  2016 Appalachian Fires
Long-term study of wildfires vs prescribed fires in Florida