

1 *Supplement of*
2 **Measurement of scattering and absorption properties of dust aerosol**
3 **in a Gobi farmland region of northwest China—a potential**
4 **anthropogenic influence**

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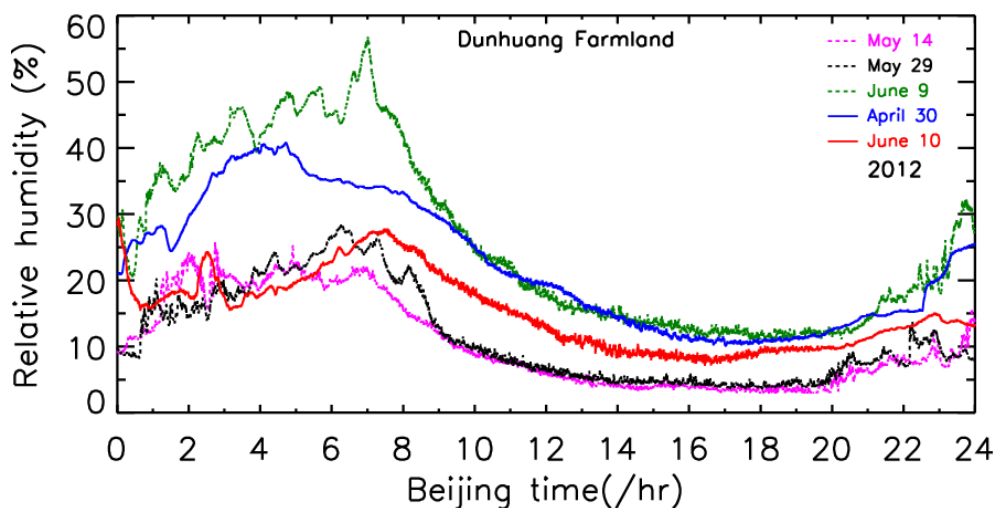


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44 **Figure S1.** A variety of agricultural cultivations in Dunhuang farmland (40.492°N, 94.955°E,
45 altitude: 1061 m) prior to the growing season (i.e. from 1 April to 10 May, 2012), producing
46 massive soil dust in the source and downwind regions. (a) The deployment of SACOL's Mobile
47 Facility (SMF) and its adjacent bare farmlands. A tractor was plowing in the nearby farmland on
48 12 April 2012. (b) Land planning at the afternoon on 20 April, 2012, for the furrow-irrigated land
49 preparation. (c) A ploughing tractor generated a great amount of tiny soil particles into the

50 atmosphere at the forenoon on 2 May, 2012. (d) An open-cabin tractor was laying plastic mulch
51 nearby the SMF at the afternoon on 6 May, 2012. (e) Land disking for planting at the afternoon on
52 6 May, 2012. (f) The crops in Dunhuang farmland (nearby SMF) gradually become green on 14
53 May, 2012, indicating the coming of growth season.

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59 **Figure S2.** Diurnal variations of 10-second average relative humidity (RH, %) under completely
60 clear-sky conditions (14 May, 29 May, and 9 June) and dust events (30 April and 10 June) in
61 Dunhuang farmland. The RH and other meteorological variables were observed by a weather
62 transmitter (Model WXT-520, Vaisala, Finland).