

2.2 DUST CONTROL



Figure 2.5. Truck-mounted dust-control applicator
(Source: http://soiltac.com/Photo_Gallery.html)

Overview

Description: A chemical product applied to the exposed soil surface to prevent the movement of dust that may be harmful to human health.

Problem identification: Fugitive dust becomes airborne by wind or by vehicle movement due to construction site areas that are devoid of vegetation and moisture.

Design purpose: To prevent surface air movement of dust from exposed soil surfaces.

Associated practices: Becomes a problem when surface vegetation is destroyed and construction begins, with borrows and construction roads.

Installation: A number of materials can be used, such synthetic resin, lignosulfanate, or soybean oil. See Table 2.1. In some cases, calcium chloride is used on roads. Other options are temporary seeding, roughening the soil surface, or erecting snow fences or other barriers.

Table 2.1. Dust control methods—dilution and rates of application

Adhesive	Water dilution	Nozzle	Rate, gal/ac
Resin emulsion	4:1	Fine	300
Lignosulfanate	1:1	Coarse	1,815
Soybean soil (soapstock)	Undiluted	Coarse	1,210-2,420

Maintenance/inspection: Exposed soil must be protected before dust becomes a problem.

Design life: Varies with season and treatment, up to several weeks.

Estimated cost: \$.03 to \$.07 per sq ft



Figure 2.6. Manual dust-control applicator (Source: http://soiltac.com/Photo_Gallery.html)