

# How Coherex dust retardant solves dust problems.



Witco

# Coherex<sup>®</sup> dust retardant provides clean, economical, long-lasting dust control.

Everyone is familiar with the problem of dust. When carried in the air it can damage crops, cause respiratory illness, affect visibility, spread disease and speed up the natural forces of erosion. Unchecked, it can add to pollution and adversely affect our entire ecology.

Coherex<sup>®</sup> was developed as a result of years of extensive research and thorough field and laboratory testing. Coherex stabilizes soil against wind erosion, thereby eliminating airborne dust and movement of sand along the ground.

## What Coherex is.

Coherex dust retardant is a concentrated non-volatile emulsion consisting of approximately 60% semi-liquid natural petroleum resins and 40% wetting solution. The resins are film-forming, dust-binding portions; the wetting solution is the component which keeps the petroleum resin dispersed in finely divided particles and makes Coherex readily miscible with either fresh or salt water. The resulting solution carries the resinous particles into the layer of dust to be penetrated.

In addition, Coherex is superior to conventional dust palliatives because it is clean, efficient, economical, easy to apply and non-flammable. Tests have shown no harmful effects in plants and animals.

## How Coherex works.

Coherex provides a modern method for erosion control through proper soil conditioning. When

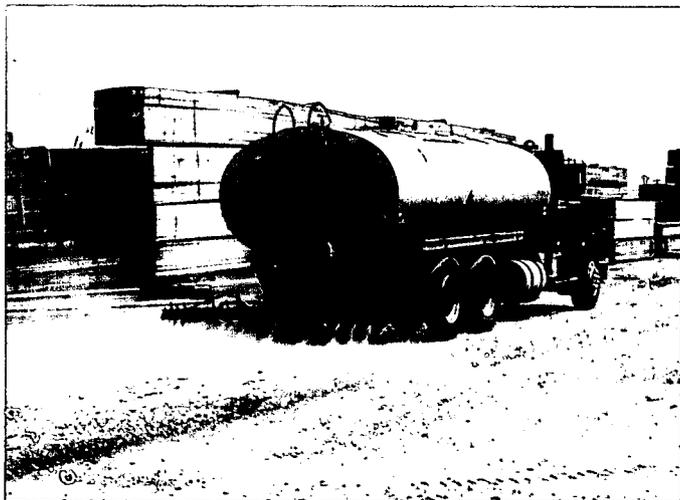
Coherex contacts the dusty ground, it coats the dust particles and forms cohesive membranes that attach themselves to adjacent particles. The chain-like bonds result in large "agglomerates" too heavy to be dislodged by wind. The resulting overall increase in particle size actually immobilizes the dust and prevents it from becoming airborne. Treatment with Coherex is a more effective approach to soil stabilization because the required cohesiveness is imparted to the soil without drastically altering its original make-up.

## Coherex is highly stable.

The high stability of Coherex in storage and handling contributes greatly to the economic value of the product, assuring no loss of material by spoilage. It can be stored for long periods without impairing its quality if kept in clean containers and protected from extreme temperatures (freezing and boiling). Diluted Coherex should preferably be used within one day, since prolonged storage might result in stratification. If stratification occurs, simple agitation or stirring will prepare the mix for use.

## How to apply Coherex dust retardant for the best results.

Apply Coherex by sprinkling the area with a sufficient amount of the diluted dust-binder to penetrate the layer of dust to the depth required. When determining the ratio of Coherex to water, remember that



Coherex solves the "dust storm" problem at lumberyards.



Loose sand and silt are bound together on the ground and are unaffected by normal winds.

depth of penetration is controlled by the total amount of fluid applied (concentrate plus water) and that the thickness of the deposit of resins on the dust particles is controlled by the amount of Coherex concentrate in the fluid applied. The type of soil influences both the amount of fluid required to saturate it and the time required to reach the depth of penetration desired. Spreader trucks, hand sprayers, orchard sprayers, or other standard equipment can be used.

#### **General recommendations.**

For best application, spraying pressure should be approximately 25 to 40 pounds. The following examples may serve as further illustrations:

#### **Ballparks and playgrounds.**

Deep penetration on a thin coating of dust particles can be obtained by drenching the ground with a highly diluted mixture. (A 1:7 dilution of Coherex to water will immobilize only the dust, while maintaining the soft free-flowing properties of the sand.) Less penetration and a heavier coating can be obtained by using a more concentrated mixture of dust-binder and water. (A 1:4 dilution applied at a lower rate will result in a surface which will better withstand wear, and will bind dust blown onto the treated area.)

#### **Dirt roads, driveways and utility yards.**

With relatively thin layers of dust over hard sub-surfaces, application of a more concentrated mixture in moderate amounts will produce the desired complete penetration down to the hard subsurface with a sufficiently heavy coating of dirt particles. (A 1:4 dilution applied one-half gallon per square yard will suffice to treat a dust layer of approximately 1/2 inch thickness.) Retreatment will be necessary, depending on the soil type, the kind of traffic and the traffic volume.



The application of Coherex to roadways at campsites helped alleviate dust caused by recreational-vehicle traffic.

#### **Areas covered with large amounts of loose dirt.**

On construction sites, for example, several applications at a high dilution with water is recommended. (A 1:10 or even 1:15 dilution of Coherex is advantageous in all cases where water is presently used as a temporary dust palliative or as a means of stabilizing a road undersurface.) This application will save time, labor and water. The highly-diluted dust binder gives better penetration, better wetting, stabilization and improved adhesion, all of which result in considerable cost savings.

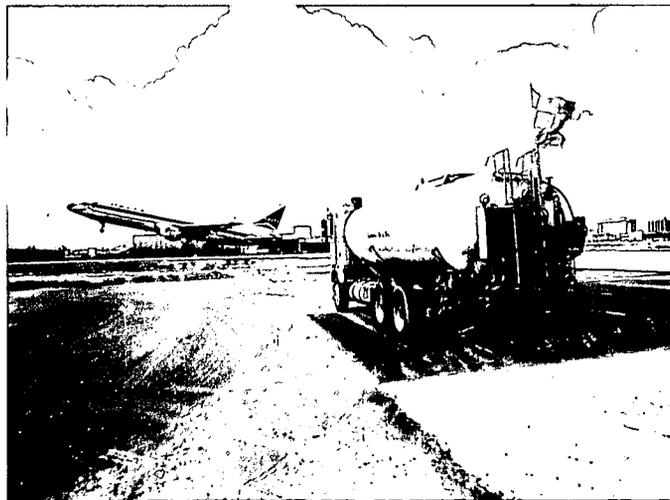
#### **Road shoulders and farm service roads.**

Here, the application of a moderately concentrated mixture in high amounts is recommended. In many cases it will prove most practical to give the surface two applications. (On ranch roads, for instance, a 1:6 dilution applied one gallon per square yard, followed a few days later by a 1:4 dilution applied one-half gallon per square yard will give the most satisfactory results.) These two applications will convert dusty roads into compact road surfaces over which traffic can move at normal speeds without stirring up dust that can drift onto crops. On dirt roads, retreatment will usually be necessary.

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**Note of caution:** Detailed treating instructions are available, and should be consulted to assure proper application. Under no circumstances should Coherex be applied in its concentrated form. Coherex must always be in diluted form in accordance with recommended dilution ratios for specific applications.

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During runway construction at Los Angeles International airport, Coherex controlled dust from the planes while keeping seeds in place for grass growth.

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