

FLUID

facts

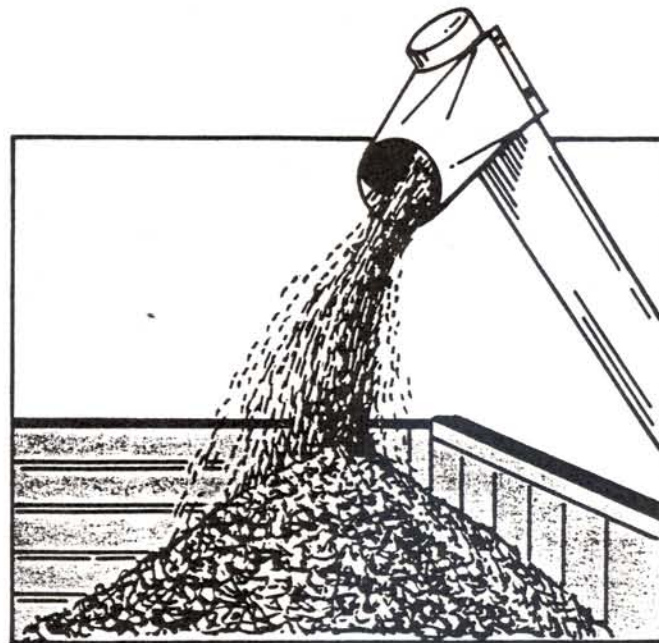
THE NATIONAL FERTILIZER
SOLUTIONS ASSOCIATION

Surface Banding N-P Looks Good for No-Till Wheat

In the Great Plains low rainfall areas (14-22 inches), research has shown many advantages for no-till winter wheat over conventional bare fallow.

No-till wheat advantages:

- ✓ Reduced wind and water erosion
- ✓ Increased water availability — crop residue traps and holds more rain and snow
- ✓ Soil organic matter and crop residue reduces evaporation
- ✓ Improved soil water holding capacity
- ✓ More residual nitrogen, phosphorus, potassium and other plant nutrients



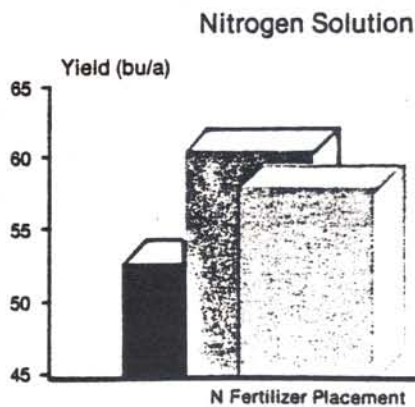
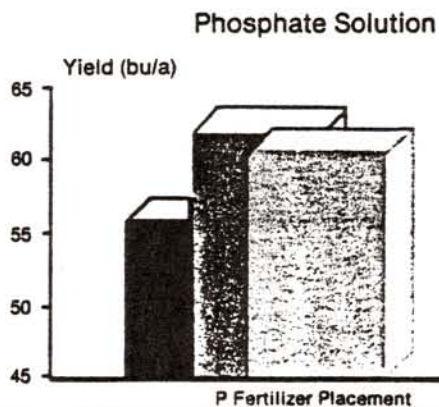
HIGHER NO-TILL WINTER WHEAT YIELDS

Banding Tends to Produce Higher Wheat Yields

No-till dryland wheat studies by Colorado State University show dribbling 30 pounds of phosphate on the soil surface in a

band over the seed produced 5.4 bushels more than broadcasting the same amount of phosphate on the soil surface. Results of a N-P study are shown below.

BROADCAST VS BANDED STUDY RESULTS



Westfall D.G.,
1986 Fluid
Fertilizer
Foundation
Symposium
Proceedings

■ Surface Broadcast

■ Dribble Surface Band

■ Banded Below the Seed

Profit Note: 5.4 bu/a times 400 acres equals 2,160. At \$2.40/bu that's \$5,184 more profit by banding than by

broadcasting phosphate. Similar results were obtained with nitrogen applied in the same manner.

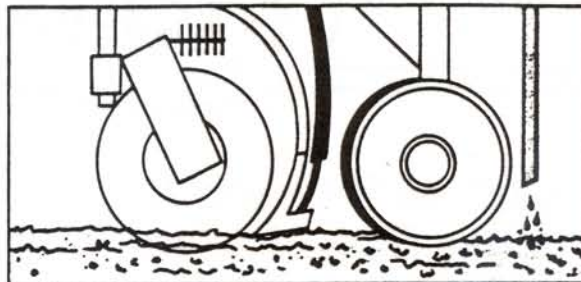
Convert Your Drill for Surface Banding Fluid Fertilizer...It's Cheap and Easy

PARTS NEEDED:

1. Squeeze Pump (or other dispenser) that you may already have
2. Tubing from dispenser down to area just behind the planter press wheel (applies fluid after row closure)

NOTE:

New planter shoes, disk openers or other parts are *not* required.

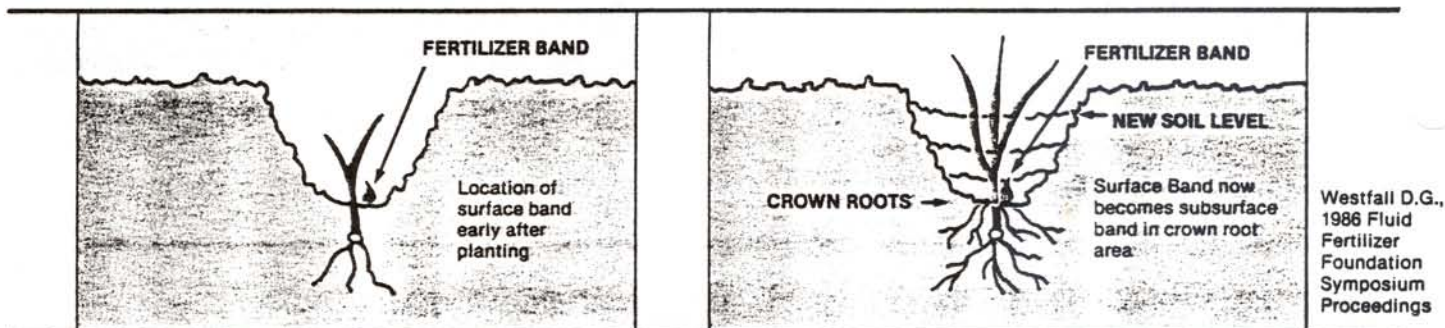


Drill Rig for Surface Banding

Research Shows Surface Banding Produces Similar Yields as Banding Below the Seed...

BUT WHY?? THE ANSWER: MAYBE A SURFACE BAND BECOMES A SUB-SURFACE BAND WITH TIME. The configuration of the press wheel and soil surface after planting is

thought to be important in obtaining efficient use of nitrogen and phosphorus when applied over the seed row after planting. The reason for this is shown below.



In the Western Great Plains region, there is always a dry layer of soil on the soil surface. During the planting process this has to be moved aside in order for the seed to be planted in moist soil. This results in a surface soil configuration as shown in drawing above. With time, wind and rain action make the soil slough into the deep furrow slot. *The original surface banded fertilizer now ends up as a*

sub-surface placement. As the crown roots are initiated later at the 3.5 leaf stage of growth, ($\frac{1}{2}$ to $\frac{3}{4}$ inches below the soil surface) they are able to intercept the fertilizer band that was placed over the seed row after closure. **RESULT? Efficient use of nitrogen and phosphorus, similar to the yield obtained by banding below the seed.**

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FIELD NOTES