

## SURFACE BANDING SUPERIOR TO BROADCASTING ON REDUCED-TILL

Growers who band are finding that crop yields improve significantly compared to broadcasting, where nutrients may be lost due to residue tie-up and volatilization. Surface banding involves application of liquid fertilizer in bands or strips of varying widths on the soil's surface or on the surface of crop residues. Surface banding, sometimes called "dribbling" or "stripping," allows for the speed and convenience of custom application, yet offers the agronomic benefits of banded fertilizer.

### Summary Points

- Hundreds of university and private trials also have shown greater yield potential in reduced-till with surface banding when compared to broadcasting.
- Zones of high nutrient concentration are produced, which improve nutrient-use efficiency.
- A high concentration of nutrients offers four important benefits:
  - Increased root uptake
  - Reductions in fixation of phosphorus and potassium
  - Reductions in nitrogen loss
  - Enhancement of phosphorus uptake by roots via more nitrogen..

### Conclusion

Five-year trials on corn at Purdue University during the '80s first brought attention to the benefits of surface banding versus broadcasting.

Surface banding in reduced-till has shown up to 21 bu/A increases in corn yields over broadcasting in University of Maryland trials, 5 bu/A increases in wheat yields, and as high as 1,100 lbs/A increases in bromegrass in Kansas comparisons. Corn is drier when harvested, nutrient uptake is greater P/K fixation is reduced, and wind drift is less.

Documentation is sufficient. Speed and convenience of custom application, nutrient efficiency, and improved yields are three mighty benefits for those who switch from broadcasting to surface banding in reduced-till.

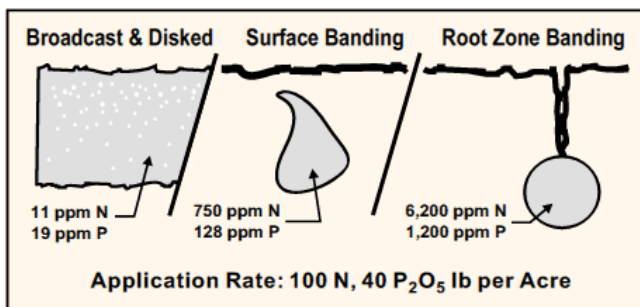


Figure 1. Soil nutrient concentrations comparing broadcasting, surface banding, and subsurface banding.

### Article Credits

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Full paper is available from the Fluid Journal archives:

<http://www.fluidfertilizer.com/PastArt/1998.htm>

