May 23, 19,
Corn V-6, Rev5, Pre-plant, Side Dress,
Spokane, Washington.

Primary Indexed Banding, 12 inch, V-6 Turbo Side band. Arrangement 4.


Standard Opener arrangement used for Pre-plant and side dressing.

## 5 degree angle TAPPS Pre-plant on 12 inch, first 30 days:

The 24 inch row planter singulating corn seed is aligned $15 \%$ of the time within 2 inches on either side ( 4 inches total width) of the pre plant TAPPS 12 inch deep band. Thus $15 \%$ of the area is accessible by the initial semial roots. NPKS efficiency must be reviewed on sandy soils since corn roots at emergence need placed NPKS very close to seed rows.


Binary Banding can have higher and lower rates in P and T bands.


Askew Equalateral 12 inch band spacing.
$15 \%$ of all corn plants access one equalateral band at V-2
$100 \%$ of all corn plants access one equalateral band at V - 6 .
$\longrightarrow 30 \%$ of corn plant acces two equalateral bands at V-6
Paired Binary Indexed Banding.
100\% of all corn plants access a dediciated Primary band at Emergence. $100 \%$ of all corn plants access a second dedicated T band at V-3 with 19/5.


Note: 24 inch corn rows. Plant Spacing 8 inch.
Bands located 7 to 8 inces deep.
Root Circular limits at 4, 10 and 15 inch dia.
Seed row fertiilzer may not be functional with Paired Binary Indexed Banding.


Top Performance, 56 lbs . N as NH3 per band. Binary Paired Indexed Banding, 16.5/7.5

> Sandy Soils Approved.
> Delete Seed Row Starter.


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Binary Paired Indexed Banding, 19/5 Sandy Soils Approved. Delete Seed Row Starter.

## Notes

Application rate of NH3 not to exceed 140 lbs . N per acre. TAPPKTS Band concentration at 56 lbs . N as NH 3 per acre. Bands located directly under the 24 inch corn row. Bands concentration 56 lbs . N in a 12 inch band at 8 inch depth will allow highest levels of P and K availabilty. P and K can be further reduced with Rotational Band Loading.
Note 1, Research developed by Harapiak and Penney, Alberta Cooperative Fertilizers, Nitrogen interference with Phosphate Uptake.
Note 2. Researched developed by Travis Miller, Texas AM, Banding depth and yield with exceptional phosphate effieciency in wheat and pasture production systems.
Note 3, Research for Binary Banding Guide Lines by Bock and Swanson, Goodland, KS, 2018, Bock, Consultant for TKI and Swanson Pres. of Exactrix Global Systems.
Note 4, Testing confirms highest rate per acre at 140 lbs . N as Exactrix NH 3 with $1 \% \mathrm{CV}$ of application uniformity. Highest nutrient efficiency achieved at 56 lbs . N per band on 12 inch. Note 5 , Testing confirms highest rate per acre at 140 lbs . N as Exactrix NH3 with $1 \% \mathrm{CV}$ of application uniformity. Highest nutrient efficiency achieved at 70 lbs. N per band on 15 inch.

Note 6, The research and testing confirms that Exactrix TAPPKTS pre-plant P-51C Mustang banding at 1\% CV is the only nutrient application system approved for the practice of Binary Banding. Do not attempt with inferior openers that can not band to 7 to 8 depths. Do not attempt with systems that can not deliver at high 300 psi pressures at $1 \%$ CV application uniformity. Materials approved are NH3, 10-34-0 Ammonium Poly Phosphate, 12-0-0-26S or Thiosul, 0-0-25-17S or KTS, Ammoniated Zinc with Manganesee sulfate. Use no other materials.

Note 7, The No-till research and testing confirms that Exactrix TAPPKTS pre-plant P-51C Mustang banding can occurr immediately ahead of the planter with no waiting period. Confirmation is further made the planter can operate directly on top of the Exactrix bands. No waiting period is required. Highest levels of fertilizer efficiency is anticipated, No seed row fertilizer is required on the planter. Not designed for tillage systems.

