

## BIO SHOT BIOSTIMULANT ON COTTON SEED AND LINT YIELDS, TN 2020

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A 12.67x30 ft. plot, four replicate, randomized trial, was carried out in DP 1646B2FX cotton, planted on May 23 and harvested on November 19, 2020, at Agricenter International, in Memphis, TN, on a good fertility and drainage Falaya silt loam soil.

Bio Shot biostimulant foliar sprays were implemented with CO<sub>2</sub>-pressured backpack, attached to two 8002 flat-fan nozzles per row, at 30 PSI, with 15 gal/ac. spray volume, on 4 occasions: June 27, July 15, August 7 and August 31, 2020, at 35, 53, 76 & 100 days after planting (DAP), in stage majority percentages (BBCH Scale) of 51%, 60%, 67% and 80%, respectively.

Bio Shot at 40 ml/ac. sprayed to leaves on 4 occasions: at 35, 53, 76 & 100 DAP, yielded in seed cotton and in lint: 352 lb/ac and 137 lb/ac, respectively, or 15% significantly higher than the untreated control, with \$ 88.08/ac net profits and a cost/benefit ratio of 4.1 (Table & Figs.).

| Treatment                            | Seed cotton yield lb/ac | Lint yield lb/ac | Lint yield increase |    | Added income | Added cost | Net profit | Cost / benefit ratio |
|--------------------------------------|-------------------------|------------------|---------------------|----|--------------|------------|------------|----------------------|
|                                      |                         |                  | lb/ac               | %  |              |            |            |                      |
| Untreated Control                    | 2322 b                  | 906 b            | -                   | -  | -            | -          | -          |                      |
| Four Bio Shot 40 ml/ac foliar sprays | 2674 a                  | 1043 a           | 137                 | 15 | 109.68       | 21.60      | 88.08      | 4.1                  |
| LSD (P=0.05)                         | 151                     | 58.8             |                     |    |              |            |            |                      |

