

Stalk Destruction trials conducted in 2019 and 2018 in the LRGV

Conducted by Danielle Sekula (IPM agent) and Dr. Josh McGinty (Agronomist)

Herbicide treatments used for the 2019 Stalk Destruction trial:

1. Duplosan 32 fl oz followed by Duplosan 32 fl oz
2. Duplosan 32 fl oz + thidiazuron 3.2 fl oz followed by Duplosan 32 fl oz + thidiazuron 3.2 fl oz
3. Engenia 25.6 fl oz followed by Engenia 25.6 fl oz
4. Engenia 25.6 fl oz + thidiazuron 3.2 fl oz followed by Engenia 25.6 fl oz
5. Duplosan 16 fl oz + Distinct 2 oz (or substitute Status 2.5 oz) followed by Duplosan 16 fl oz + Distinct 2 oz

Herbicide treatments used for the 2018 Stalk Destruction trial:

1. Duplosan 32 fl oz followed by Duplosan 32 fl oz
2. Engenia 25.6 fl oz followed by Engenia 25.6 fl oz
3. Engenia 12.8 fl oz + Duplosan 16 fl oz followed by Engenia 12.8 fl oz + Duplosan 16 fl oz
4. Engenia 19.2 fl oz + Duplosan 24 fl oz followed by Engenia 19.2 fl oz + Duplosan 24 fl oz
5. Duplosan 32 fl oz + thidiazuron (Dropp) 3.2 fl oz followed by Duplosan 32 fl oz + thidiazuron (Dropp) 3.2 fl oz

*Both trials in both years were sprayed 12 to 14 days after shredding of stalks to allow some regrowth so the treatment applied could have better uptake.

*In both trials All treatments include COC @ 1% v/v.

In both years, the use of Duplosan at the full rate proved to be effective at controlling cotton in all cultivars.

In both years, the addition of thidiazuron (Dropp or Freefall) improved efficacy of both dichlorprop (Duplosan) and dicamba (Engenia). Freefall currently has a 24(c) Special Local Need registration in TX for post-harvest control of cotton (SLN # TX 200004, valid through December 31, 2025).

In both years it was noted that when slight regrowth (leaves approximately 1-1.5" across) is present, both dichlorprop and dicamba work fine. When more regrowth and larger leaves were present, control was reduced. Smaller regrowth=better control, however control of stalks with zero regrowth has been inconsistent.

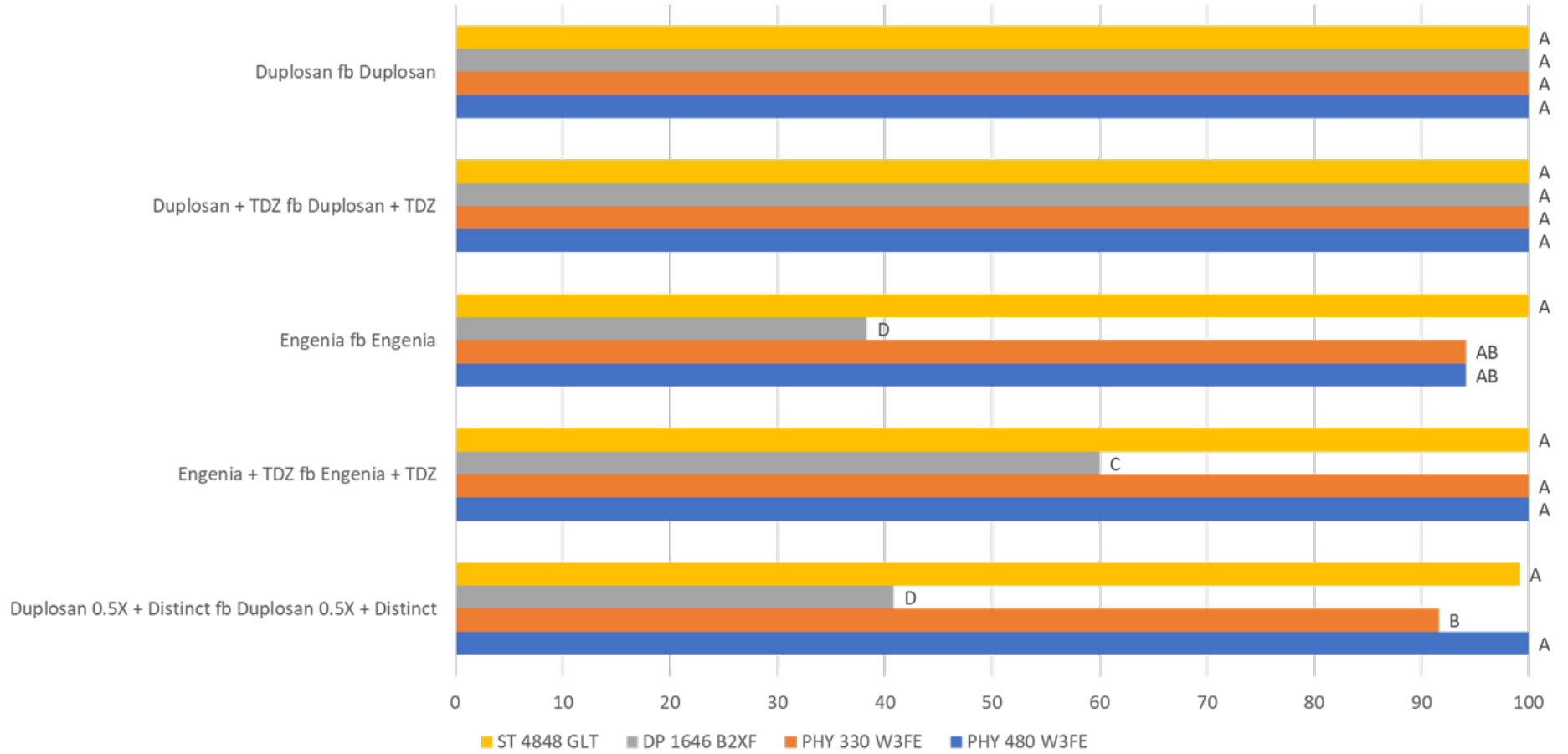
Dicamba performed well controlling cotton but when too much regrowth was present it would become less effective

It was also noted that under moisture stressed conditions during stalk destruction efforts, applications of Duplosan to shredded or standing stalks with no regrowth resulted in poor control. Dicamba was much more effective (but not perfect)

*With that noted, there is plenty of moisture in the LRGV since Hurricane Hanna. It is important to not let too much regrowth occur. Again, slight regrowth appears to be necessary to allow for uptake of dichlorprop or dicamba. However, too much regrowth will inhibit control efforts, particularly when dicamba is used. It is best than to control sooner than later.

2019 Stalk Destruction Trial

Cotton Mortality 4 WAT – Lyford, TX



Abbreviations:

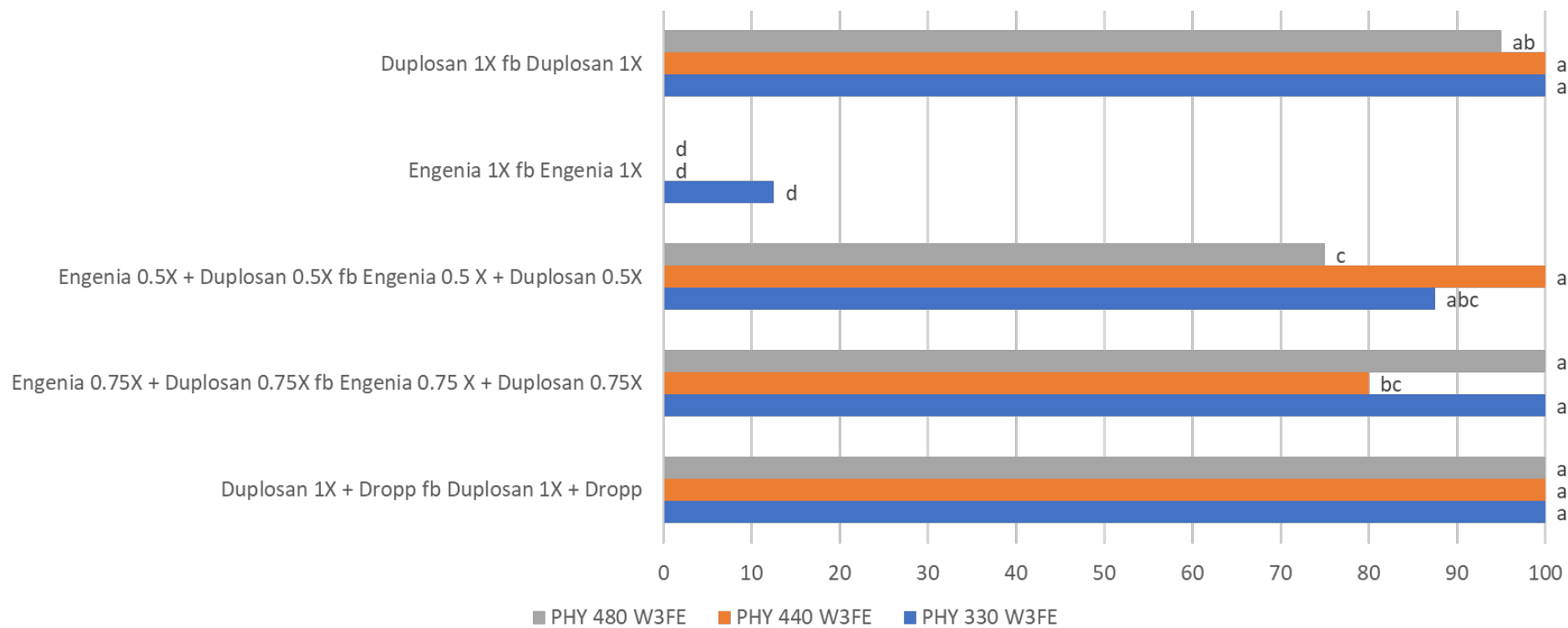
'WAT' stands for 'Weeks after Treatment'

'fb' stands for 'Followed by'

'TDZ' stands for 'thidiazuron'

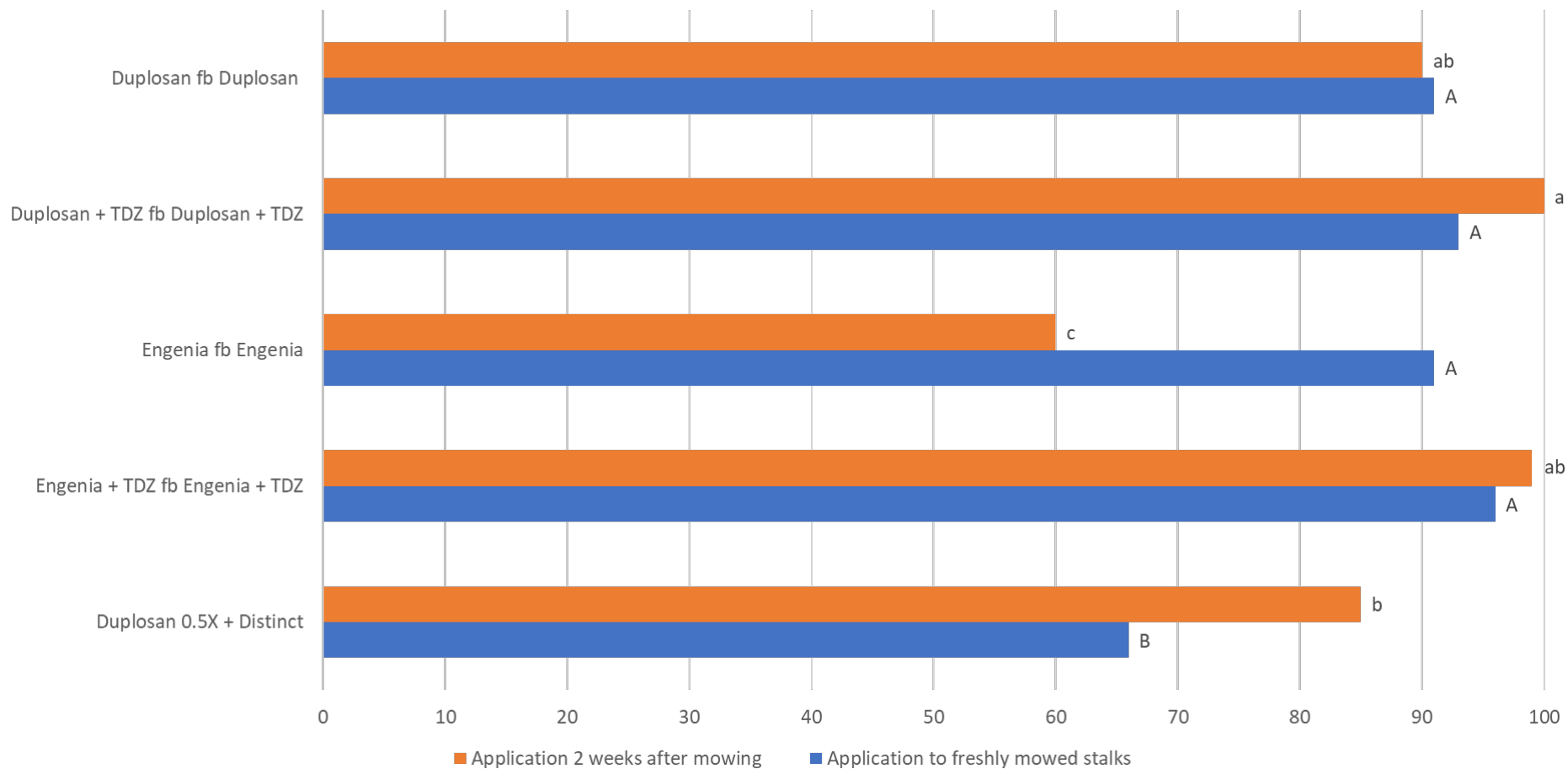
2018 Stalk Destruction of W3FE Varieties – Weslaco AREC

Cotton Mortality 21 Days After Second Application



2019 Stalk Destruction trial conducted by Dr. Josh McGinty at the Corpus Christi AgriLife Research and Extension Center

Cotton Mortality 4 WAT – PHY 480 W3FE – CCAREC



*Herbicides were applied at different timings (freshly mowed stalks and 2 weeks after mowing) and compared on PHY 480 W3FE cotton stalks.