

2020 Wheat cultivar evaluation under irrigation:

New cultivar added to recommendations

The ARC-Small Grain conducted a very successful cultivar evaluation programme in the irrigation regions. All of the field trials planted were harvested.

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AT THE RECENT ANNUAL meeting of the national cultivar evaluation workgroup one cultivar, SST 8157, was added to the list of recommended cultivars for irrigation wheat production in the 2021 season. No existing cultivars were removed from the list.

The ARC-Small Grain conducted a very successful cultivar evaluation programme in the different irrigation regions in 2020. Of the 19 cultivars included in the field trials, four were new entries. These cultivars are PAN 3453, PAN 3555, SST 8177 and SST 8205. All of the 32 field trials planted were harvested and included in the project report that was submitted to the national cultivar evaluation workgroup.

Results obtained in the 2020 season

Irrigation trials were planted at two different planting times in the different irrigation regions, namely an “earlier” and a “later” planting, with the exact dates varying between regions. The exception is the KwaZulu-Natal area, where the planting window is too narrow for two planting dates. This information is valuable when deciding on the best cultivar in a specific crop sequence situation, where crops produced before and after the wheat determine the planting date.

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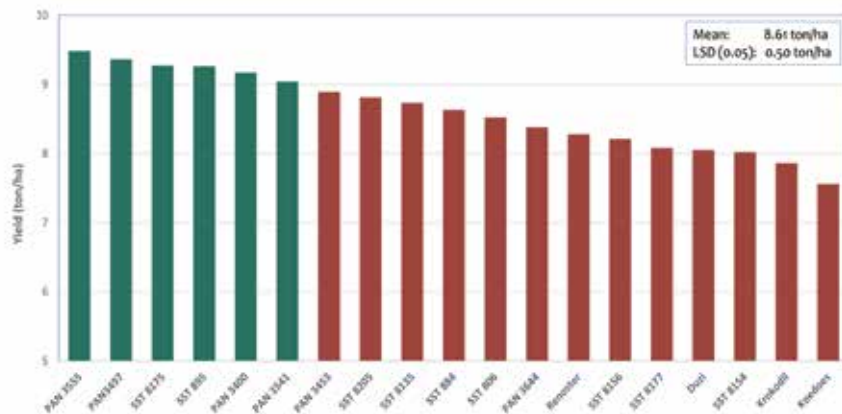


Figure 1: Yield (ton/ha) of cultivars in the Cooler Irrigation Areas (earlier planting) during 2020.

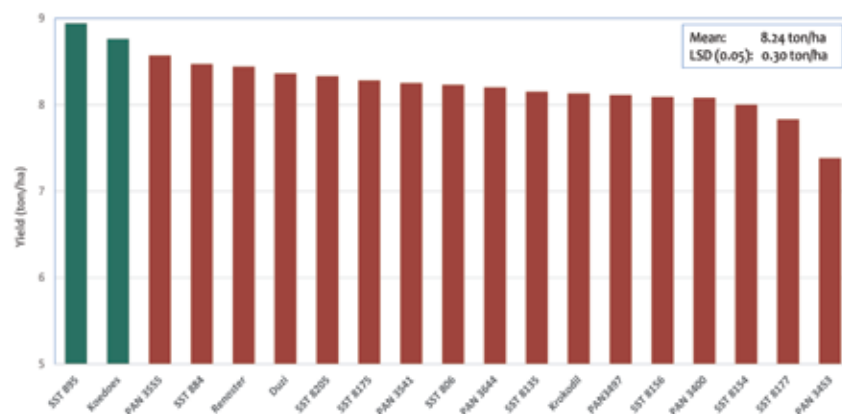


Figure 2: Yield (ton/ha) of cultivars in the Cooler Irrigation Areas (later planting) during 2020.

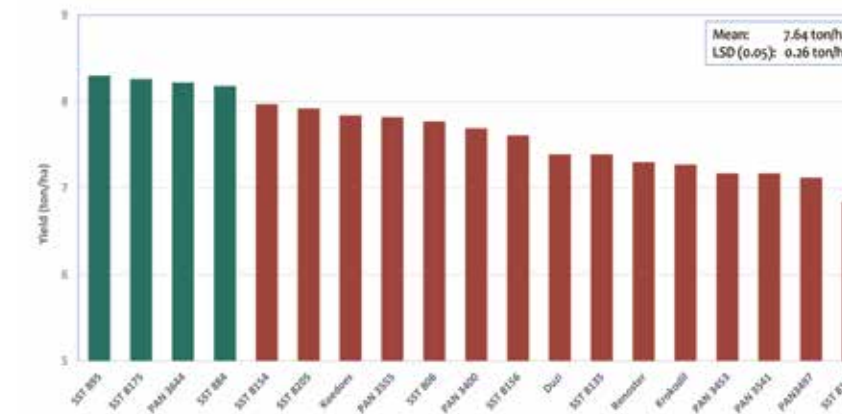


Figure 3: Yield (ton/ha) of cultivars in the Warmer Irrigation Areas (earlier planting) during 2020.

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In **Figures 1 to 7**, the yield results for the 2020 season are given for all cultivars entered in the national cultivar evaluation programme (NCEP).

- The “Cooler Irrigation Areas” refer to production in the Northern Cape Province
- Production in the Limpopo and Mpumalanga provinces is grouped under the “Warmer Irrigation Areas”
- The areas “Highveld” and “KwaZulu-Natal” is self-explanatory.

The “LSD” value in each figure is the statistical term “Least Significant Difference”. If the yield of a cultivar differs more than the value of the “LSD” from the next one, the difference is scientifically significant. In the figures, all cultivars, which did not differ significantly from the best cultivar in the specific region, are marked in green.

More detailed information on the performance of irrigation wheat cultivars are available in the production guidelines published by ARC-Small Grain on an annual basis. These include information on the one-year performance, as well as long-term data for all the production regions and different planting times. The guidelines were available to producers from the end of February 2021 on the ARC website (www.arc.agric.za).

For any additional information, producers are welcome to contact Willem Kilian at 082 441 2306 or kilianw@arc.agric.za.

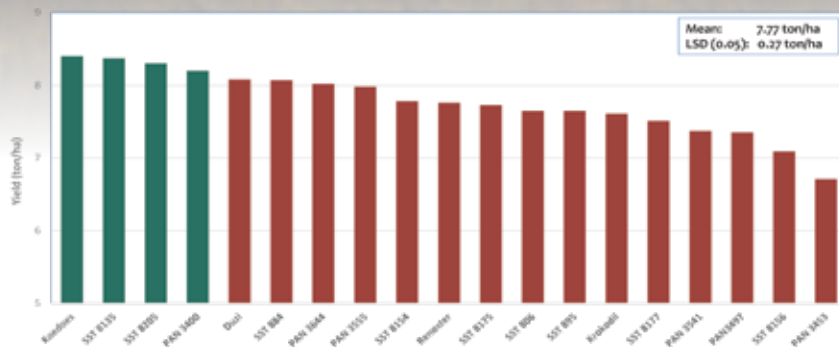


Figure 4: Yield (ton/ha) of cultivars in the Warmer Irrigation Areas (later planting) during 2020.

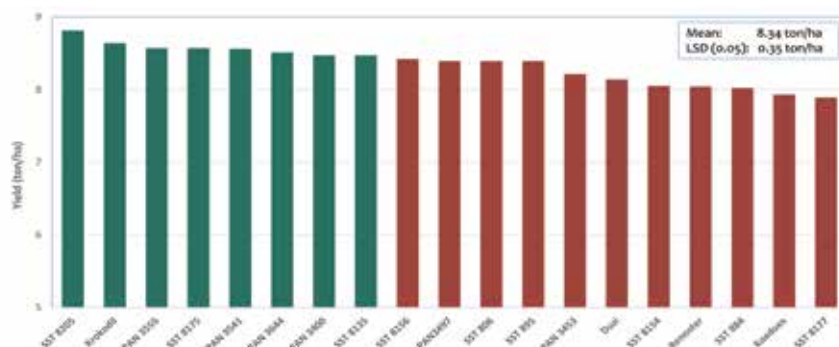


Figure 5: Yield (ton/ha) of cultivars in the Highveld Irrigation Areas (earlier planting) during 2020.

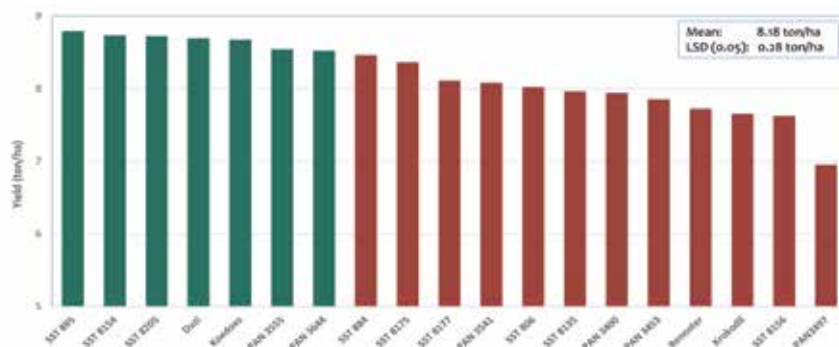


Figure 6: Yield (ton/ha) of cultivars in the Highveld Irrigation Areas (later planting) during 2020.

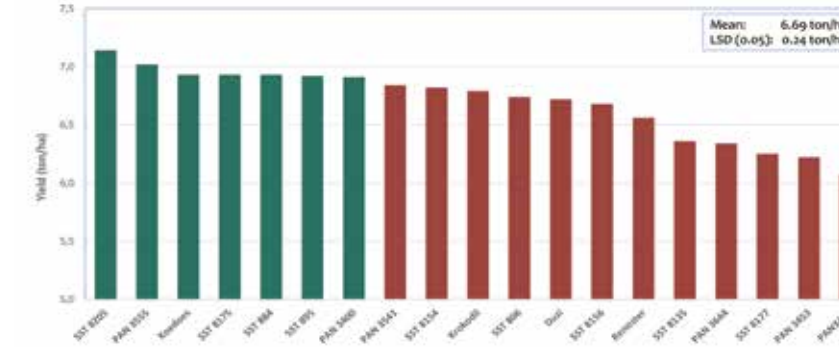


Figure 7: Yield (ton/ha) of cultivars in the KwaZulu-Natal Irrigation Areas during 2020.