

2022 PIGEON PEAS DEEP BED HARVEST DATA

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Deep Bed Farming (DBF), a climate smart agricultural method, has been tested by farmers to replace conventional ridge farming. It increases maize yield from an average of 1.7 tonnes per hectare to over 8.0 tonnes per hectare.

Where maize is grown with other crops through intercropping, DBF increases both the maize yield and the other crops. In Mulanje it is common for farmers to plant maize, cassava, pigeon peas, pulses, and squashes. With DBF all these crops grow vigorously and give very high yields.

A yield survey of pigeon peas grown as an intercrop with maize, showed an **80% yield increase** in DBF yield, compared with conventional ridges. The survey was done on 10m by 10m plots with data from 80 farmers spread over 5 Extension Planning Areas.

Results:

- In Deep Beds, the yield range was from 6,100kg/ha to 18,800kg/ha while in ridges it was 2,800kg/ha to 11,500kg/ha.
- The average yields were 12,153kg versus 6,734kg/ha respectively in DBF versus ridges.
- The average difference was 5,400kg/ha above conventional ridges' yield.

It was noted that yield increases were higher in Kamwendo, Msikawanjala and Thuchila EPAs, which have large areas of typically low rainfall. Kamwendo EPA, which has the lowest rainfall, saw the most substantial yield increase with DBF.

Implications: Farmers in Mulanje experience a two-fold staple yield doubling, since pigeon peas is a staple crop in Mulanje, together with maize and cassava. The doubling of maize, followed by a doubling of pigeon peas later is a big boost to the livelihoods of the farmers.

