



DEPARTMENT OF AGRICULTURAL RESEARCH SERVICES (DARS)

## AGRICULTURAL PRODUCTIVITY PROGRAMME FOR SOUTHERN AFRICA (APPSA)

### APPSA GROOMS SUCCESSFUL LEAD FARMER TO PROMOTE CONSERVATION AGRICULTURE IN MALAWI

Patricia Dzimbiri (37) is one of the successful female lead farmers from Chinguluwe Area, in Salima District who has been participating in farmer field trials for conservation agriculture and maize/legume intercropping for 3 consecutive years under the Agricultural Productivity Program for Southern Africa (APPSA) project. A Lead farmer is an innovative and successful farmer within the local community who is committed to training fellow farmers on agriculture methods and technologies. He/she works in direct contact with research and extension agents to help champion the demonstration of a technology in his/her area. Conservation farming provides small-scale farmers with the opportunity to achieve food security in the face of challenges of poor soils, poor rain and poor yields. It is a set of soil management practices that minimize the disruption of the soil's structure, composition and natural biodiversity.

In the 2016/2017 cropping season Patricia apportioned one acre of land to field demonstrations. On  $\frac{1}{2}$  acre plot she compared maize productivity under conservation agriculture (CA) and under conventional farming practices. She observed that the maize crop from CA plot grew faster and bigger than from the conventional maize plot. She further noted that the CA plot required very minimal hand weeding. Patricia pronounces in her own words "*Munda woyala mapesi mumakhala tchile lochepa...timangozulira*" meaning that the plot under CA had very few weeds which only require hand weeding because the growth of weeds is suppressed by the ground cover. She noted that moisture and nutrient retention for plot under CA was much higher than in the plot under conventional method. It was impressive to listen to Patricia's simple scientific understanding and articulation of the trials and the treatments. Patricia harvested 225 kg of maize on CA plots compared to the 150 kilograms harvested from the conventional plot of the same size.

In the second set of demonstration on the other  $\frac{1}{2}$  acre plot she compared productivity of maize intercropped with cowpeas with pure maize stand, both under CA. She observed that the maize plot intercropped with cowpeas had a much greener crop stand as compared to the pure maize stand. She explained that cowpeas, being a legume has the ability to fix nutrients that are used by maize. She further explained that the canopy formed by the cowpeas maintained even additional

moisture to the crops. She harvested 200 kg of maize on the maize-legume intercropped plot compared to 125 kg on pure maize stand.

With improved harvests Patricia has managed to improve her cash inflows. With the additional benefit of being a member of Tiyesere Village Savings Loans and Savings Group Patricia is able to save her funds to purchase inputs for the next cropping season in time. In addition, she managed to purchase livestock for breeding through savings from crop sales produced from her farm.

Patricia appreciates the technologies being promoted by APPSA, and is keen to scale them up on her farm. She plans to expand CA, maize-legume intercropping to 2 acres of land in the next cropping season. Patricia is also imparting her knowledge to other fellow farmers. As a lead farmer, she has personally mentored seven follower farmers from nearby villages on CA, and imparted knowledge to over 70 farmers through field days and other farmer fora.

Patricia is appreciative of the role played by Extension in providing technical support in Chinguluwe Extension Planning Area (EPA). The Extension is working in close collaboration with Chitala Agricultural Research Station. The collaboration has resulted in 77 follower farmers adapting the CA technology and maize/legume intercropping in Chinguluwe EPA alone.



*Patricia's CA plot showing permanent soil cover*



*Maize harvested from the CA plot*

**For more about the success story please contact** Dr Mackson Banda, APPSA  
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