

2) Identify alternative crops for double cropping under no-till

Recent introduction of new technology such as the no-till system, herbicides and residue management offers an opportunity to increase area of double cropping or second crop. Fuel for producing agricultural products has become expensive and no longer is available in unlimited supply. By using no-till, multi-cropping technique, two crops can be planted with the same fuel required for one conventional crop. Farmers and researchers agree that double cropping can add grain or forage production in the demonstration sites. More needs to be produced from less land. It is time for growing two crops in a year as against the current practice of growing either cotton or winter wheat in a year. Many crops can be used for double cropping after wheat harvest in the irrigated conditions of Central Asia including Aral Sea Basin. In this context corn, mung bean, pearl millet, millet, kidney bean, and sorghum can be used as summer crops after the wheat harvest in the project demonstration sites. Three varieties of mung bean are being studied under irrigated wheat–cotton rotation in the project demo site for double cropping after the harvest of winter wheat.

Integration of mung bean into continuous cotton-wheat cropping to increase crop production and improve soil fertility through implementation of double cropping will be demonstrated. A field continuously planted to cotton-wheat selected on Qorao'zak district farms.

This experiment conducted at the project demo site in Shakhap farm of Qorao'zak district in July 2015. Three different mungbean varieties planted after wheat harvest as double crop, which is not common practice in the conditions of Karakalpakstan.

Initial observations shows that the field performance mungbean was in good conditions (Please see pictures). Double cropping is good for farmers (more produce means more money) and good for the environment (producing more on a unit of land means less land will need to be devoted to farming). Double cropping has a great potential to increase agricultural production in the project demonstration site in Aral Sea Basin.



Mungbean field in the project demo sites in Qorao'zak district in Aral Sea Basin action site.