



Rice in Afghanistan

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After wheat, rice is the most important staple crop in Afghanistan. Most of the rice is grown in the North Eastern provinces, including Baghlan, Kunduz, Takhar, Laghman, Nangarhar, Bahlk and Kunarha.

Production levels

In 2011-2012, around 210,000 hectares of rice were planted with a total production of 449,400 ton. The average yield was 2.14 ton/ha or 0.43 ton/jerib (CSO, 2011-2012).

How is rice grown in Afghanistan?

- **Crop cycle:** 130 and 150 days from planting to harvest, depending on the variety and location.
- **Field preparation:** Rice is grown in flooded basins (Figure 1). Basins are typically built along the natural contour (Figure 2). In the future, leveling may allow larger basins with straight levees (Figure 2, right). Fields are plowed using animal (oxen) traction and in some areas tractors are used.



Figure 1. On the left, rice seedlings being planted in a leveled basin in Afghanistan. On the right, rice growing in a flooded basin (Source: left JICA, right Davis Wiley via Flickr).



Figure 2. Rice field with in-contour levees (left) and straight levees (right) (Source: UCCE Rice Production Workshop 2011).

- **Nursery:** Nurseries –to prepare the young seedlings– are prepared in April/May at a seed rate of about 21 kg/jerib (105 kg/ha).
- **Transplanting:** Seedlings are transplanted at 30 – 40 days old in May and June in to the flooded basins.
- **Flood irrigation:** Fields are kept flooded until just before harvest (September/October). Farmers typically aim to keep a 10-20cm layer of water (Figure 1, right).
- **Fertilizer:** For the average national yield of 2.14 ton/ha, the crop requires around 85 kg N/ha and 30 kg Phosphorous (as P₂O₅) /ha. Fertilizer rates will depend on natural soil fertility.
- **Pests and Diseases:** Blast and stripe rust are important diseases. Grasshoppers can be a problem.

Varieties

Both Indica and Japonica rice types are found in Afghanistan. Local Indica varieties are often classified according to their resistance to cold weather: medium or long *garmah* or *sardah*. *Sardah* varieties can be planted earlier in the season and have a longer crop cycle. Some existing local varieties include Surkha Zerati (Indica; both long *garmah* and *sardah* types), Loog (Japonica) and Shah Lawangi (not classified). Only a few improved rice varieties have been reported in the country: Afghan-98, Baghlan-98, Basmati 385, JP 5 and Swat 2.

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Reference: Thomas, V. and Ramzi, A.M. 2011. "SRI contributions to rice production dealing with water management constraints in northeastern Afghanistan". Paddy Water Environ (2011) 9:101–109; "Afghanistan Statistical Yearbook 2011-2012", Afghanistan Central Statistic Organization (CSO) <http://cso.gov.af/Content/files/Agriculture%20Development.pdf>.

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