

*Editorial*

## Kharif and cover crop

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### EDITORIAL NOTE

Kharif crops, monsoon crops or autumn crops are domesticated plants that are cultivated and harvested in India, Pakistan and Bangladesh during the Indian subcontinent's monsoon season, which lasts from June to November depending on the area. Monsoon rains may begin as early as May in some parts of the Indian subcontinent, and crops are generally harvested from the third Week of September to October. Rice, maize, and cotton are some of the major Kharif crops in India. The opposite of the Kharif crop is the Rabi crop, which is grown in the winter.

The words Kharif and rabi both have their origins in the Arabic language. These came to be used in India with the ascent of the Mughal Empire in the Indian subcontinent and have been widely used ever since. Kharif literally means "autumn" in Arabic. The sowing happens during monsoon and reaping happens close to Autumn in the Indian subcontinent; this proximity to Autumn reap season is called the Kharif period.

The Kharif season varies by crop and region, starting at the earliest in May and ending at the latest in January. In India, the season is popularly considered to start in June and end in October. Kharif crops are usually sown at the beginning of the first rains during the advent of the south-west monsoon season, and they are harvested at the end of monsoon season (October-November).

Monsoon sowing dates vary, occurring toward the end of May in the southern state of Kerala and reaching July in some north Indian states. In other regions like Maharashtra, the west

coast of India, and Pakistan, which receive rains in June, Kharif crops are sown in May, June and July. In Bangladesh, Kharif crops are usually sown with the beginning of the first rains in June.

These crops are dependent on the quantity of rainwater as well as its timing. Too much, too little, or rain at the wrong time may lay waste to the whole year's efforts.

In agriculture, cover crops are plants that are planted to cover the soil rather than for the purpose of being harvested. Cover crops manage soil erosion, soil fertility, soil quality, water, weeds, pests, diseases, biodiversity and wildlife in an agroecosystem—an ecological system managed and shaped by humans. Cover crops may be an off-season crop planted after harvesting the cash crop. They may grow over winter.

Although cover crops can perform multiple functions in an agroecosystem simultaneously, they are often grown for the sole purpose of preventing soil erosion. Soil erosion is a process that can irreparably reduce the productive capacity of an agroecosystem. Cover crops reduce soil loss by improving soil structure and increasing infiltration, protecting the soil surface, scattering raindrop energy and reducing the velocity of the movement of water over the soil surface. Dense cover crop stands physically slow down the velocity of rainfall before it contacts the soil surface, preventing soil splashing and erosive surface runoff. Additionally, vast cover crop root networks help anchor the soil in place and increase soil porosity, creating suitable habitat networks for soil macrofauna. It keeps the enrichment of the soil good for the next few years.

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