

# Factors Determining Agricultural Productivity

A number of different factors can cause agricultural productivity to increase or decrease. It is important to note that productivity is not an absolute measure, but rather a reflection of the ratio between inputs and outputs. A field that produces twice as much of some crop as it did in a previous year is not necessarily twice as productive; if the farmer spent twice as much on that field, the net change in productivity would be zero.

Factors that affect farm productivity and often can't be in the control of the farmer are:

- **Weather** - unusual weather patterns, such as drought, a prolonged rainy season, early or late frosts and other factors can ruin crops and bring productivity down
- **The Capacity of a Given Farm** - soil can't be forced to produce beyond capacity, although there are methods that can be used to improve production capacity, such as proper fertilizing to add nutrients to the soil so that it can support more crops
- **Pests** occurred or not by certain weather conditions - in addition to spoiling crops, pests can add significantly to the costs of producing a crop. Controlling them may require measures such as fencing, chemical or biological treatments, companion planting or crop rotation, all of which change the ratio of inputs to outputs
- **Available Equipment** - in regions where access to mechanized farm equipment is low, agricultural productivity can also be low as people handle their crops primarily by hand. This involves a big investment of time, energy and money and also limits the total capacity of the land
- **The Supply and Demand in the Market** - farmers will adjust their activities to meet the needs of consumers and this can have an impact on agricultural productivity. In some cases, governments even pay subsidies to farmers to compensate them for not growing crops, which can skew productivity measures.

For agricultural productivity innovation is a key factor. If farmers want to increase their productivity, they need to farm smarter, by using farm management system Agrivi. It helps them manage whole farm production, from tracking of activities on all fields, consumption of fertilizers, pesticides, work hours of workers and mechanization, to tracking of finances and complete farm analysis and reports.

Investment in developing new farming techniques and in researching new approaches to farming need to be on a daily basis.