

EARN PROFIT WITH SUMMER MOONG

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INTRODUCTION

Moong is an important pulse in India. It is mainly grown for its grains and nitrogen fixation properties. Moong is also known as mungbean or moong bean. It is a leguminous crop, which does nitrogen fixation with the help of rhizobium present in the nodules on the root. Moong is cultivated in two seasons, i.e. summer moong and kharif crop. Summer moong has set to a trend in Punjab in the wheat – rice rotation. Moong does not require a lot of resources for its production. Its production cost is very less, and farmers can earn benefit by adding summer moong to their traditional rice – wheat cropping sequence.

BENEFITS OF SUMMER MOONG

Summer moong as the name suggests, is the crop of summer season (April to June). It takes 60 days to mature. It is the short duration crop, which can be sown after harvesting wheat crop, and before rice transplantation. Summer moong has its own importance in wheat rice cropping sequence.

Some of the benefits of summer moong are listed below:

1. Earn more profits by getting three crops in a year.
2. Nitrogen fixation by rhizobium in the root nodules of moong.
3. Increased phosphorus availability to rice crop succeeding summer moong.
4. Increased production of rice planted after moong.
5. Increase soil health by adding organic matter by incorporating stubble of moong after harvest.
6. Decreased soil erosion caused by leaving field fallow after wheat harvest.
7. Nitrogen requirements of rice crop are decreased by 20% to 25%.
8. Improvement of soil health.

WHY SUMMER MOONG?

Summer moong is a short duration crop which produces grains within 65 days after sowing. We have a fallow period of 60 to 70 days after

harvesting wheat to plant short duration varieties of rice. Mostly PR 126 and basmati varieties like Pusa 1509 and Pusa 1121. Also, least field preparation is required for sowing this crop with minimal fertilizer use. Minimal use of pesticides is needed for a good production of summer moong. This crop is easy to cultivate and does not increase input costs of the farmer. Summer moong not only provide financial support to farmers, but also it fixates atmospheric nitrogen to the soil. Rhizobium having a symbiotic relationship with moong plant resides in the nodules present in the roots of moong. It gets amino acids from the plant as its food, and in exchange rhizobium fixes nitrogen to the soil. Nitrogen is a key component for the proper growth of any crop. Water can also be saved with summer moong cultivation. Short duration rice varieties are cultivated after summer moong which demand less water for production. It saves 20% water than traditional long duration varieties. Also, moong has less water demand than other green manuring crops like dhaincha. Also, summer moong is very easy to produce and have very less agronomic demands. One or two irrigations depending on the rainfall are enough for its harvest. Very less fertilizer requirements are there. Phosphorus used in moong will serve rice crop as well. No further phosphorus input is required for rice crop. Two or three insecticide sprays are required for controlling pod and leaf borers in moong.



AGRONOMIC PRACTICES FOR SUMMER MOONG PRODUCTION.

•Pre sowing irrigation:

A pre sowing irrigation can be given in standing wheat crop before 7 – 10 days before harvest or it can be given after harvest for timely sowing of summer moong.

•Land preparation:

No land preparation like ploughing is required. Zero drill or a normal seed drill can be used to sow directly in wheat harvested field after making turi. Rotavator or a rotary seed drill can also be used. Broadcasting of seed before rotavator can also be done.

•Time of sowing:

Sowing should be done as soon as possible after wheat harvest for timely rice transplantation.

•Seed rate:

8kg to 10kg seed is sufficient for sowing one acre.

•Seed inoculation:

Seed inoculation should be done with the recommended rhizobium species for moong. One packet of rhizobium (PAU, Ludhiana) can be used for one acre seed. Wet the seed with water and mix rhizobium culture with it. Dry it in shade for 30 45 minutes and sow immediately.

•Improved varieties:

TMB 37 is YMV resistant variety and can be used for summer moong cultivation. It is ready to harvest in 60 days. SML 832 and SML 668 can also be used which matures at 62 and 61 days, respectively.

•Method of sowing:

Sow at 30 - 45 cm row to row distance with a seed drill at 4 - 6 cm depth. Or can be sown bi directional in both directions with 30cm spacing. Zero drill can also be used.

•Weed control:

One hoeing after four weeks after sowing is fine. Chemical control by pendimethalin 30 EC 1ltr @ acre can also be done within three days of

sowing.

•Irrigation:

One or two irrigations depending on rainfall can be applied. One irrigation at pod formation is must if no rainfall is there.

•Fertilizer application:

100kg SSP @ acre should be broadcasted at sowing to increase the nodule formation in moong. P2O5 should be omitted in succeeding rice crop.

•Harvesting:

Harvest should be done when 75% pods turn brown. It can be done with sickle or mechanically with combine harvester. Paraquate Dichloride 24SL at 1200 to 2000ml @ acre can be used to dry up green plants for harvest with combine harvest.

•Insect Control:

Moong is susceptible to semilooper, tobacco caterpillar, hairy caterpillar, pod borer and whitefly. Lepidoptera insects can be controlled by chlorantraniliprole 18.5SC 40ml @ acre. Whitefly can be controlled by thiamethoxam 100 gm @ acre.

CONCLUSION

Growing summer moong is very positive in wheat rice cropping sequence. It gives many benefits to farmers. Farmers can get additional income with least expenses, and also can increase soil health at the same time. Wheat rice farmers should grow summer moong, and save water by choosing short period rice varieties.

