THESIS ABSTRACTS
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Agricultural Economics

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VASANTRAO NAIK MARATHWADA KRISHI VIDYAPEETH, PARBHANI

Title	-	**Resource use efficiency and price behavior of Greengram in marathwada region of Maharashtra**
Researcher	-	Kanade, AmolUttam
Research Guide	-	Deshmukh, K.V.
Department	-	Agricultural Economics
Subject	-	Agrilcultural Economics
Degree	-	Ph.D.
Thesis No.	-	1731
Krishikosh link	-	http://krishikosh.egranth.ac.in/handle/1/5810033313
Abstract	-	

Greengram or Mung having botanical name *Vignaradiata*which belongs to family Fabaceae or leguminoceae, native to the Indian subcontinent is one of the most wholesome among pulses in India. Greengram provides protein to vegetarian population of the country. This pulse crop is important for its medicinal and nutritional properties, and also for adaptability to drought conditions. The nitrogen fixing bacteria in the plant's root help to replenish the nitrogen content of the soil. In India during 2014-15 area under greengram was 23.38 lakh hectares, production was 9.58 lakh tonnes and productivity was 410 kg/ha. In Maharashtra during that period area under greengram was 3.152 lakh hectares with annual production of 0.843 lakh tonnes with an average productivity of 268 kg/ha. In Marathwada region during 2014-15 area under greengram was 1.576 lakh hectares with an annual production of 0.298 lakh tonnes with an average productivity of 185 kg/ ha. Multistage sampling design was adopted for selection of districts, tehsils, villages and greengram growers. The Parbhani and Nanded districts were purposely selected. Two tehsils from each district were selected on the basis of highest area under greengram and from each tehsil three villages were randomly selected. From each selected village ten greengram growers were selected for present study. Thus, from two districts 120 greengram growers were selected. The data pertained for the year of 2015-16. Two district level markets were selected on the basis of availability of time series data. In analytical techniques like frequency and percentage, means, functional analysis, tabular analysis were used to analyze the data. The results revealed that in Marathwada region the growth of area under greengram (-5.06 per cent) was significantly declined whereas the growth of production (-4.59 per cent) was non-significantly declined which could not achieve positive trend; while the growth of productivity

was positive but non-significant (0.59 per cent). The variability implied that area, production and productivity of greengram in all districts of Marathwada region were unstable during the period of study. About 59.17 per cent growers belonged to middle age group. Majority of greengram growers educated up to secondary level and they had medium family size. Maximum number of growers had more than 2 to 4 hectares of land. Average gross cropped area was 5.34 hectares and the cropping intensity was 145.11 per cent. The results revealed that total cost of cultivation was Rs. 38086.03 in which highest expenditure on hired human labour followed by rental value of land. The gross returns were Rs. 50537.87 and the net profit was Rs. 12441.84. The Output-input ratio was 1.32 in greengram production.

The elasticity of production with respect to area under greengram, hired human labour and plant protection was positive and highly significant. It inferred that there is scope to increase these resources in greengram production. The growth trends in arrivals of greengram at selected markets were declined throughout the study period; while the prices were showing positive and significant trends. The seasonal indices showed that in selected markets the peak season was observed during August to January while the slack season observed during March to July. In Parbhani market average prices of post harvest months are higher than the average price of pre harvest months. While in Nanded market the average prices of pre harvest months were slightly constant and averagely higher than the prices of post harvest months, which mean that the peak prices of greengram were partly coincided with the peak arrivals months. The cyclical movement of arrivals of greengram in selected markets showed that in Parbhani market number of cycles were 3, these cycles occurred for every 2 to 3 years. In case of prices, in Parbhani and Nanded market was 3 cycles were observed, these cycles occurred for every 3 to 2 years.

The ADF test implied that the prices series become stationary at first difference level. Co-integration test indicated that the selected greengram markets having long run equilibrium relationship and there exists Co-integration between them. The Granger causality test showed that there is unidirectional causality in greengram prices between Parbhani and Nanded markets. The ARCH-GARCH analysis implied that the volatility shocks in the prices of greengram are quite persistent in the studied markets. The estimates of VECM model revealed that co-integration equation value of Nanded was significant therefore Nanded market attained short run equilibrium rapidly while Parbhani market came to equilibrium in long run. Severe drought condition or long dry spell during crop season, high cost of chemical fertilizers and plant

protection, Poor availability of transportation means, these are major constraints in greengram production. provision of maximum subsidy for drip and sprinkler irrigation to cover the maximum area under irrigation, minimize the rates of chemical fertilizers, plant protection and other essential inputs, improved better transportation means so as to supply the produce in efficient manner, these suggestions opined by greengram growers.

Title	-	**Resource use efficiency and price behaviour of soybean in marathwada region of Maharashtra**
Researcher	-	Pachpute, SupriyaShivaji
Research Guide	-	Deshmukh, K.V.
Department	-	Agricultural Economics
Subject	-	Agrilcultural Economics
Degree	-	Ph.D.
Thesis No.	-	17135
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Abstract	-	

Multistage sampling design was adopted for selection of districts, tehsils, villages and soybean growers. The Parbhani and Nanded districts were purposely selected. Two tehsils from each district were selected on the basis of highest area under soybean and from each tehsil three villages were randomly selected. From each selected village ten soybean growers were selected for present study. Thus, from two districts 120 soybean growers were selected. The data pertained for the year of 2015-16. Two district level markets were selected on the basis of availability of time series data. In analytical techniques like frequency and percentage, means, functional analysis, tabular analysis were used to analyze the data. The results revealed that in Marathwada region the growth of area under soybean (19.78) was significantly declined whereas the growth of production (18.83) was significantly declined which could achieve positive trend; while the growth of productivity was inconsistent resulted in non-significant decline (-0.80). The variability implied that area, production and productivity of soybean in all districts of Marathwada region were unstable during the period of study. The results revealed that total cost of cultivation was Rs. 41898.50 in which highest expenditure on rental value of land followed by hired human labour. The gross returns were Rs. 56869.51 and the net profit was Rs. 14971.01. The Output-input ratio was 1.36 in soybean production.

MVP to price ratio with respect to area, hired human labour, family human labour, machine, seed, manure, bullock pair and potassium was greater than unity while MVP to price ratio of Nitrogen, Phosphorus, and plant protection was negative. The results inferred that there was greater chance to increase seed, Potassium, manure and hired human labour utilization. The growth trends in arrivals of soybean at selected markets were declined throughout the study

period; while the prices were showing positive and significant trends. The seasonal indices showed that in selected markets the peak season was observed during October to December while the slack season observed during May to August. In Parbhani as well as Nanded market average prices of pre harvest months are higher than the average price of post harvest months. The cyclical movement of arrivals and prices of soybean in selected markets no cyclical behaviour observed during studied period.

The ADF test implied that the prices series become stationary at first difference level. Co-integration test showed one co-integration equation was significant at five per cent level of significance; indicated that the selected soybean markets having long run equilibrium relationship and there existed Co-integration between them. The Granger causality test showed that there was unidirectional causality in soybean prices between Parbhani and Nanded markets. The ARCH-GARCH analysis implied that among the markets the sum of Alpha and Beta was nearer to one for Parbhani and Nanded respectively, which indicated that the volatility shocks in the prices of soybean were quite persistent in these markets. The estimates of VECM model revealed that co-integration equation value of Nanded (-4.17290) was significant therefore Nanded market attained short run equilibrium rapidly while Parbhani market came to equilibrium in long run. Severe drought condition or long dry spell during crop season, high cost of fertilizers and plant protection, Unauthorized deduction in marketing process, these were major constraints in soybean production. Provision of maximum subsidy for drip and sprinkler irrigation by the government to cover the maximum area under irrigation, minimize the rates of chemical fertilizers, plant protection and other essential inputs by the government, restriction on the process of unauthorized deduction at local level, these suggestions opined by soybean growers.

Title	-	**Trends in arrivals and prices of major oilseeds in pune district**
Researcher	-	Talape, NileshChintaman
Research Guide	-	Deshmukh, K.V.
Department	-	Agricultural Economics
Subject	-	Agricultural Economics
Degree	-	M.Sc
Thesis No.	-	17224
Krishikosh link	-	http://krishikosh.egranth.ac.in/handle/1/5810034231
Abstract	-	

A study of economic analysis of market arrivals and prices assumes special significance in developing economy like India. Seasonal fluctuation is a well known feature of agriculture and also of prices. The imperial knowledge of relationship between arrivals and prices of oilseeds for assessing degree of responsiveness of market arrivals to price movements is respectively required over a period of time. Such studies are useful to formulate economic policies beneficial for consumers, producers, traders and government. To identify some direction about the degree of competitiveness in markets for oilseeds. It helps the farmers to adopt suitable marketing strategies to maximize their net returns. Semelines regarding sample selection

The analytical tools used were seasonal indices, coefficient of variation, standard deviation, trend, mean, compound growth rate and linear growth rate.

Findings of the present study lead to draw some conclusions. The oilseeds were sold immediate after harvest showing more arrivals in post harvest months. The negative sign indicates that the inverse relationship between the arrivals and prices when the market arrivals increases the prices decreases and vice-versa.

It can be implies that farmer may sell Groundnut produce in the month of August to December. Groundnut produce has highest price in the month of May to July; there was more profit in storing the commodities. Sunflower produce has highest price in the month of December January; there was more profit in storing the commodities. Similar for soybean also sell by producer in the month of December and May to get highest price to their produce.