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**Integrated Nutrient Management for Higher Productivity and  
Better Soil Health under Rice (*Oryza sativa*) - based Cropping  
Systems**

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**ABSTRACT**

An experiment was conducted during *kharif* and *rabi* 1999-2000 and 2000-01 on sandy clay loam soil at College Farm, College of Agriculture, Rajendranagar, Hyderabad to study the effect of conjunctive use of inorganic and organic sources of nitrogen and inorganic nitrogen alone on soil fertility in rice-based cropping systems. Significantly lower soil available N, P<sub>2</sub>O<sub>5</sub>, K<sub>2</sub>O and higher bulk density were observed with application of 100% N through urea to rice compared to 25 % N through FYM+75% N through urea applied to rice. However, application of 25% N through GM along with 100% N through urea proved to be the best with respect to available N, P<sub>2</sub>O<sub>5</sub>, K<sub>2</sub>O and physico-chemical properties after *kharif* and *rabi* crops. Groundnut grown during *rabi* after rice resulted in significantly higher soil available N, P<sub>2</sub>O<sub>5</sub>, K<sub>2</sub>O, lower BD and EC compared to maize, wheat and soybean. Among cropping systems, rice-maize sequence has produced significantly higher RGEY compared to other cropping systems.

**Key words** : Bulk Density, EC and Urea, Green Manuring, Rice grain equivalent yield,  
Soil available N, P<sub>2</sub>O<sub>5</sub>, K<sub>2</sub>O.

**Correlation and Regression Analysis of Rice-Weed Ecosystem under  
Rainfed Upland Conditions.**

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**ABSTRACT**

Field experiments were conducted at Agricultural College Farm, Naira for two consecutive *kharif* seasons of 2005 and 2006 to study the correlation and regression of the grain yield of rice on certain weed and crop parameters under rainfed upland conditions. The results revealed that the grain yield was highly negatively correlated with all the weed parameters except with the density of grasses, sedges and dicots and total weed density at 20 DAS, while the correlation was significantly positive with weed control efficiency. The correlation coefficient between grain yield and all crop parameters were significantly positive except with plant height at 20 DAS, while it was significantly negative with weed index. The regression analysis indicated that there was a negative linear relationship between grain yield and the density of all the three groups of weeds as well as with weed dry weight. The grain yield was reduced by 8.0 kg ha<sup>-1</sup> with increase of every one gram of weed dry weight per m<sup>2</sup> at 40 DAS.

**Key words** : Rainfed Upland Rice, Rice-Weed Ecosystem

**Genetic Variability and Correlation in Yield and Grain Quality  
Characters of Rice Germplasm**

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### **ABSTRACT**

A field experiment was conducted involving 72 rice genotypes to study the extent of variability and associations in yield and grain quality traits under irrigated conditions. Coefficients of variation were high for filled grains per panicle and grain yield per plant. Existence of high heritability with high to moderate genetic advance as percentage of mean for filled grains per panicle, 100-grain weight and Kernel length indicated the possibility of yield and quality improvement through adoption of selection procedures. The characters, days to 50% flowering and filled grains per panicle had significant positive correlation with grain yield per plant. These two traits also exhibited direct positive effects on yield. Increased growth period resulted in increase of yield through larger sink size. The results indicated that selection might be highly fruitful, if directed towards higher number of grains per panicle and long slender grains with moderate tillering to evolve potential genotypes suitable for *kharif* season under irrigated conditions.

**Key words** : Correlations, Rice, Variability, Yield traits.

## **Gentic Variability, Correlation and Path Analysis in Greengram (*Vigna radiata*)**

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### **ABSTRACT**

Genetic parameters along with association and effect of yield attributing traits on seed yield have been studied to identify a set of characters for effective selection during breeding programme. All the traits studied showed significant variation except pod length and best donors for each traits was identified. Moderate to high values for genetic parameters were recorded for plant height, pod number, cluster number, 100 seed weight, plant dry weight and harvest index. Pods per plant, plant dry weight and harvest index were found to have positive association with seed yield at both genotypic as well as phenotypic levels. Path analysis revealed plant height, number of clusters, 100-seed weight, plant dry weight and harvest index at phenotypic and genotypic level, displayed positive and direct effect on seed yield. On basis of moderate to high values for genetic parameters, positive association and direct contribution towards seed yield has been observed for cluster number, pod number, plant height, 100 seed weight, plant dry weight and harvest index. Selection for these traits in combination may enhance the seed yield in greengram effectively.

**Key words** : Correlation coefficient, Greengram, Path analysis, Variability

## **Multivariate Analysis in Paprika Chilli (*Capsicum annum L.*)**

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### **ABSTRACT**

Genetic divergence was assessed among forty genotypes of paprika chilli for 15 traits using Mahalanobis'  $D^2$ , principal component and cluster analyses. On the basis of these clustering methods eleven clusters were obtained in Mahalanobis'  $D^2$  and seven clusters in hierarchical cluster analysis. Cluster VIII was the largest comprising eight genotypes in  $D^2$  analysis and cluster IV was the largest comprising 11 genotypes in cluster analysis. In principal component analysis five principal components were identified which accounted for 88.41 per cent of the variability.  $PC_1$  contributed 29.07 per cent of the total variability.

**Key words** : Cluster Analysis, Paprika Chilli, Principal Component Analysis and Ward's Minimum Variance

# Phenotypic Stability Analysis in Finger Millet [*Eleusine coracana* (L.) Gaertn] utilizing Regression and AMMI model

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## ABSTRACT

Eighteen finger millet genotypes were evaluated for several characters over 14 environments (7 sowing dates with 2 fertility levels). The analysis of variance of Eberhart and Russell indicated that GXE interaction was significant for all 12 characters under study and the genotypes differed significantly. AMMI is a useful tool for interpreting genotypeXenvironment interaction in multi environment trials. Among the AMMI component first four IPCA axis were explained most of the portion of GXE interaction than other IPCA axis for the five characters under study. The ANOVA indicated non-significant GXE interaction for 1000 seed weight and ANOVA of (Eberhart and Russell,1966) indicated non-significant GX E (linear) interaction for productive tillers per plant, length of finger, 1000 seed weight, when tested against pooled deviation. As per AMMI analysis the IPCA<sub>1</sub> significantly contributed to all five characters productive tillers per plant, length of finger, 1000 seed weight and yield per plant while IPCA<sub>2</sub> contributed significantly to GXE interaction for length of finger, ear weight per plant. This brings out clearly the advantage of AMMI ANOVA in bringing out GXE interaction through IPCA<sub>1</sub> which gets combined with error in the other two ANOVA and points out the utility of AMMI models in studying the significant GXE interaction and identifying stable genotypes for characters which so undetected in the earlier analysis. According to AMMI analyses the genotypes like GE532,GE1240 and GE1287 (for productive tillers per plant); GE1683,GE1035,GE3363 and GE3678(for length of finger); GE1035,VMC219,GE2999 and VMC226 (for ear weight per plant); most of the genotypes (for 1000 seed weight); GE1035and GE1240 (for yield per plant) are more stable because they are having IPCA score near zero that is they show less interaction with environments. According to Eberhart and Russell the genotypes like GE3986 and GE1077(for productive tillers per plant); VMC226 (for length of finger); GE3986 (for ear weight per plant); GE2999 (1000 seed weight); GE532 and GE2999 (for yield per plant) showed desirable performance.

**Key words :** AMMI, Finger millet, Stability

## Comparison of Different Stability Parameters in Sesamum (*Sesamum indicum* L.)

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## ABSTRACT

The study of different stability parameters in sesamum genotypes over 6 environments indicated that stability parameters like Wricke's (1962) ecovalence, mean variance due to genotype-environment interaction of Plaisted and Peterson (1959) and variance or information of ranks over environments gave similar results to that of the deviation from regression (S<sup>2</sup>d) of Eberhart and Russell (1966). The genotypes EC 358039, Madhavi and Tanuku Brown for days to 50% flowering; Nellore Brown Local, EC 358022 and Madhavi for number of seeds per capsule and seed yield per plant and seed yield per plot were stable.

**Key words :** Sesamum, Stability

## Correlation and Path Analysis in *Kabuli* Chickpea (*Cicer arietinum* L.)

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**ABSTRACT**

Thirty genotypes of *Kabuli* chickpea (*Cicer arietinum* L.) were grown during *rabi* 2006-07 and observations were recorded on 11 quantitative traits. Correlation indicated biological yield (g) expressed highest positive significant correlation with seed yield per plant followed by number of pods per plant, 100-seed weight (g), harvest index (%), plant height (cm) and days to maturity. Path coefficient analysis indicated high direct effects of biological yield per plant and harvest index with seed yield per plant. Therefore these characters should receive the highest priority in selecting high yielding plants in chickpea breeding.

**Key words** : Correlation, *Kabuli* Chickpea, Path Analysis

**Heterosis studies in Dual Purpose Sorghum  
[*Sorghum bicolor* (L.) Moench]**

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**ABSTRACT**

Thirty hybrids of sorghum derived from 10 lines and 3 testers, their parents and checks were grown in randomized block design with three replications. Analysis of variance revealed highly significant differences among the genotypes viz., parents, crosses and parents Vs crosses for all the characters. SPV 1714 x HC 308 recorded highest significant relative heterosis and heterobeltiosis and SPV 1782 x HC 308 recorded the highest standard heterosis for grain yield. For stover yield SPV 1782 x HC 308 recorded highest relative heterosis and heterobeltiosis, while SPV 1754 x CSV 15 and SPV 1730 x HC 308 recorded the highest significant standard heterosis. Among the crosses SPV 1782 x HC 308 and SPV 1754 x HC 308 recorded significant standard heterosis for 9 and 8 characters respectively.

**Key words** : Dual purpose, Heterosis, Sorghum, *Sorghum bicolor*

**Spatial and Temporal Variability in Salinisation of Soil and  
Ground Water of Operational Drainage Pilot area, Kalipatnam,  
West Godavari district of Andhra Pradesh**

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**ABSTRACT**

Changes in the salinity of soil and ground water were monitored in 18 ha study area of Kalipatnam drainage pilot area. Soil salinity is monitored at 24 grid points (100m x 100m) after each crop season. Ground water salinity is monitored from 12 grid points (150m x 150m) at fortnight intervals from May, 2005 to May, 2006. Water salinity of adjoining Upputeru (salt stream) is also monitored during the period. Surface soils are having relatively lower EC values than subsurface indicate that ground water is contributing to the development of salinity. *Summer* soils are having higher salinity than post *Kharif* soils, indicate capillary rise of poor quality ground water during fallow period is the main source of salinity which in turn influenced by sea. Ground water salinity is following the pattern of salt stream and strong positive correlation ( $r=0.89^{**}$ ) was recorded between the ground water salinity and salt stream salinity. Temporal variability of ground water indicate during the monsoon months ground water salinity maintained at lower level and during the fallow period coinciding with no (very low) rainfall receipt resulting in the higher soil salinity. Negative correlation was observed between ground water salinity and pH ( $r=-0.615^*$ ). Spatial distribution of soil salinity indicates wide variability.

**Key words** : Drainage pilot area, Ground water, Spatial, Soil, Temporal variability.

# Investigations for Installation of Drainage System to Control Salinity in Godavari Western Delta – A Case Study

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## ABSTRACT

The study on Pre drainage investigations carried out at Kalipatnam pilot area (18 ha) of Godavari Western Delta under Andhra Pradesh Water Management Project revealed that the pilot area is almost flat with a slope of 0.01 percent and a shallow water table of poor quality (EC 4.8 to 43.1 dS m<sup>-1</sup>). The soils are highly saline with an EC 4.03 to 16.35 dSm<sup>-1</sup> and ESP 15 to 60%. The piezometer study concluded that there is vertical ground water movement in the pilot area and hence natural drainage is not possible. The Staff gauge studies at Upputeru, revealed that there is back flow of sea water to the fields during summer. The tidal range of Upputeru varies from 0.0 to 0.9 m above MSL where as the maximum land elevation is 0.4 m MSL. Hence, pumped subsurface drainage system is recommended in the pilot area instead of gravity flow.

**Key words** : Drainage system, Salinity, Waterlogging .

## Changes in Soil Microbial Population in Rainfed Groundnut with Long term Application of Manure and Fertilizers

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## ABSTRACT

The highest bacterial population was noticed in surface soil than the subsurface soil at different growth stages of rainfed groundnut. Highest soil microbial population was observed with the application of NPK + gypsum+ZnSO<sub>4</sub> followed by FYM treatment. The soil microbial population increased upto flowering stage, thereafter decreased except fung, whose population increased till the harvest of the crop. The lower values were observed in the treatments where N or P or K alone was applied.

**Key words** : Groundnut, Soil microbial population

## Mid Day Meal Programme : Implementation in Tribal Areas of East Godavari District

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## ABSTRACT

Mid Day Meal programme was implemented by the Government of Andhra Pradesh in schools since 2003 in 22 districts to provide nutrition and encourage education to children. A survey was conducted to study the implementation of mid day meal in tribal areas of East Godavari district using observation checklist and interview schedules. The results have shown that the mid day meal programme is properly implemented in tribal areas. All the children are covered under the programme in majority of the schools. The quality of food provided for children is not good. Milk and fruits are totally omitted in mid day meals. The nutritional status of the tribal children studied is much below the reference value.

**Key words** : Mid Day Meal Programme, Tribal Area

## Influence of Nitrogen and Sulphur on Drymatter,

## **Yield and Protein Content of Indian Mustard ( *Brassica juncea* )**

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### **ABSTRACT**

A field experiment was conducted during the *rabi* season of 2002 to study the effect of nitrogen and sulphur levels on dry matter, yield and protein content of Indian mustard. Application of nitrogen and sulphur @120 and 90 kg ha<sup>-1</sup> respectively gave the highest drymatter, seed yield and protein content.

**Key words** : Drymatter, Indian Mustard, Nitrogen, Sulphur, Yield

## **Performance of Bt Cotton against Insect Pest Complex under Field Conditions**

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### **ABSTRACT**

Bt cotton hybrids were proved highly resistant against bollworms with very low larval incidence of both American and pink bollworms which resulted in less fruiting body damage compared to non Bt hybrid. However, the incidence of sucking pests was slightly elevated in Bt hybrid and simultaneously the population of predatory species was also high. The high seed cotton yield together with less investment on plant protection resulted in high cost benefit ratio from Bt hybrid compared to its non Bt hybrid under field conditions.

**Key words** : Bt cotton, Bollworms, C:B ratio, Sucking pests, Predators.

## **Incidence and management of *Empoasca kerri* Pruthi and *Aphis craccivora* Koch on cowpea**

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### **ABSTRACT**

A field trail was conducted to study incidence and management of *Aphis craccivora* Koch and *Empoasca kerri* Pruthi. The peak incidence of *E. kerri* was recorded during 1<sup>st</sup> standard week where as *A. craccivora* during 7<sup>th</sup> standard week. The incidence of *E. kerri* was negatively significant with minimum temperature where as all other factors were non significant. The incidence of *A. craccivora* had positive and highly significant association with coccinellids and spiders where as all the other abiotic factors had non significant association. The results of management trail indicated that thiamethoxam 0.005% and acetamiprid 0.002% were highly effective in reducing the population of *A. craccivora* and *E. kerri* on cowpea.

**Key words** : *A. craccivora*, *E. kerri*, Incidence and management

## **Seasonal Incidence and Management of *Spodoptera litura* F. on Coriander**

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### **ABSTRACT**

Coriander sown at early date (24<sup>th</sup> November) and at later date (12<sup>th</sup> December) both recorded peak incidence of *Spodoptera litura* F. during the month of January. The incidence on early sown crop had no significant relationship with temperature and relative humidity but the incidence on late sown crop had significant and negative correlation with minimum temperature. The late sown crop was attacked earlier and more heavily infested than the early sown crop. The results of the chemical control trial indicated that thiodicarb @ 0.075% and acephate @ 0.075% were the most effective in reducing the larval population of *S. litura*.

**Key words** : Coriander, Seasonal Incidence, *Spodoptera litura*.

## ***In-Vitro* Evaluation of Certain Fungicides and Biocontrol Agents against Rice Sheath Blight Pathogen, *Rhizoctonia solani* (Kuhn)**

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### **ABSTRACT**

The present study aimed at *in vitro* screening of fungicides and the potential biocontrol agent, *Trichoderma* spp against *Rhizoctonia solani*, the rice sheath blight pathogen. All the fungicides under study viz., Carbendazim 12%+Mancozeb 63% (Companion), Trifloxystrobin 25%+Tebuconazole 50% (Nativo -75 WG), Validamycin (Sheathmar 3%L), Carboxin 37.5% + Thiram 37.5% (Vitavax power) and Hexaconazole 5%EC (Contaf) have shown more or less complete inhibition of *R. solani* both in terms of mycelial growth and in sclerotial production. All the three *Trichoderma* species viz., *T. harzianum*, *T. viride* and *T. hamatum* were found to be highly antagonistic to *R. solani* with inhibition % ranging from 63.43 (*T. hamatum*) to 76.47 (*T. harzianum*) in dual culture studies. A clear zone of inhibition as evident from yellow halo production was noticed in case of antagonistic reaction with *T. harzianum*. Further, all the three-biocontrol agents volatile and non-volatile metabolites that are antagonistic to the test pathogen.

**Key words** : Fungicides, Rice, Sheath blight, *Trichoderma* spp.

## **Influence of Organic Inputs on Growth and Yield Attributes of *Aloe vera* (L.)**

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### **ABSTRACT**

The experiment on "Influence of organic inputs on the growth and yield of *Aloe vera* L." was conducted at the Department of Horticulture, Annamalai University., Annamalai Nagar, Chidambaram. Application of organics as per treatments viz., FYM @ 1.25, 2.50 and 3.75 kg per plant; press mud @ 1.25, 2.50 and 3.75 kg per plant; decomposed coir pith @ 1.25, 2.50 and 3.75 kg per plant and vermicompost @ 0.50 and 1.0 kg per plant were made before planting of *Aloe vera* suckers. Among the organics, FYM @ 2.5 kg per plant significantly increased the growth of *Aloe vera*. Maximum number of suckers per plant was recorded in FYM @ 1.25 kg per plant. FYM @ 2.50 kg/plant significantly increased the yield attributes viz., total juice and gel weight, where as vermicompost @ 0.5 kg/plant had shown maximum gel weight. Maximum latex content with aloin in the leaves was significantly increased by the application of FYM @ 1.25 kg/plant. It was concluded that FYM @ 2.5 kg per plant is the best treatment in improving the growth and yield (30.43 tonnes/ha) of *Aloe vera*, to be grown with organic inputs.

**Key words** : *Aloe vera*, Growth, Organics, Yield.

## **Influence of Intergrated Nutrient Management on Growth and Yield of Fenugreek (*Trigonella foenum-graecum* L.)**

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**ABSTRACT**

A field experiment was conducted at Regional Agricultural Research Station, Lam during 2000-01 to study the response of fenugreek (*Trigonella foenum – graecum* L.) to certain integrated nutrient management treatments. The study revealed that combined application of inorganic, organic and biological sources of nutrients ( $T_1$  – 100% RDN + FYM @ 5 t ha<sup>-1</sup>+ *Azospirillum*,  $T_2$  – 75% RDN + FYM @ 5 t ha<sup>-1</sup>+ *Azospirillum*,  $T_3$  – 50% RDN + FYM @ 5 t ha<sup>-1</sup>+ *Azospirillum*) recorded significantly superior grain yields of Fenugreek over control with superior plant growth characters and yield attributes such as plant height, number of pods per plant and length of pod.

**Key words:** Fenugreek, Integrated Nutrient Management.

## Influence of spacings and nutrient levels on bulb yield and quality of Onion var N-53

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**ABSTRACT**

Field studies conducted on the influence of certain spacings and nutrient levels on bulb characters and bulb yield of onion cv.N-53 indicated that the bulb characters increased with wider spacing (30 x 30cm). However, the highest bulb yield of 11.8 t ha<sup>-1</sup> was observed under high plant population, i.e. , narrow spacing (30x15cm) per unit area. Among nutrient levels,  $L_4$  (200 kg N: 80 kg P<sub>2</sub>O<sub>5</sub>: 100 kg K<sub>2</sub>O/ha.) recorded the highest bulb yield of 10.0 t/ha and highest ascorbic acid content (17.02 mg/100 g bulb wt.). Among interactions effects 30 x15cm coupled with application of 200 kg N: 80 kg P<sub>2</sub>O<sub>5</sub>: 100 kg K<sub>2</sub>O ha<sup>-1</sup> recorded the highest bulb yield of 13.14 t/ha and the ascorbic acid content (16.9 mg/100 g bulb wt).

**Key words :** Bulb growth,Nutrient levels, Onion, Spacing.

## Cost Structure of Silk Cocoon Production and Economic Impact on Tribal Families of Khammam District in A.P.

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**ABSTRACT**

Human labour was an important item in cocoon production starting from harvesting of leaves to nurse the worm throughout the day and night during the rearing period. It may be observed that total value of human labour was Rs.8419 (22.69% of total cost) for all farms. Total cost of silk cocoon production and gross returns per hectare were Rs.37103 and Rs.54298 for all farms. The cost of cocoon production has indicted an inverse relationship with that of farm sizes indicating that small farmers are better in containing the costs with their personal care. The MVP to opportunity cost ratio for all farms the cost of disinfectants was -1.82 which was highest and negative and suggests to reduce the expenditure on this input for realise more gross income.

**Key words :** Cost structure, Silk cocoon.

## Development of Agricultural Entrepreneurship among Farmwomen

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#### ABSTRACT

This study was conducted in Nanded district of Maharashtra state to examine the agricultural entrepreneurship among farmwomen. It revealed from the study that 40 percent farmwomen had developed Entrepreneurship towards agriculture. Majority of respondents i.e. 40 percent were engaged in the milk and milk products enterprise and 25 percent respondents participated in nursery management enterprise. Further, farmwomen expressed their preferences towards milk and milk product, fruit preservation, vegetable dehydration, and sale of fruits and vegetables enterprise.

**Key words** : Agriculture, Entrepreneurship, Farmwomen.

## **Willingness and Problems of the Farmers to Use Botanical Pesticides in N S P Left Command Area in Nalgonda District**

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#### ABSTRACT

Paddy is the staple food for the people of Andhra Pradesh. Now a days paddy crop also consumes maximum pesticides after commercial crops. The study revealed that majority of paddy farmers are willing to use neem pesticides in future. The major reason being, it is not dangerous to human beings and environmental friendly. The study also revealed that the major problem in use of neem pesticides was lack of field demonstrations and majority of the farmers suggested the require frequent visits by the company representatives.

**Key words** : Botanical Pesticide, Command Area

## **Economics of INM Technologies for Sustainable Cotton Production and Fiber Quality: A Five Year Study in Andhra Pradesh**

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#### ABSTRACT

This study has been undertaken to make cotton production in the state of Andhra Pradesh globally competitive by reducing the cost of production at farmer's level through adoption of Integrated Nutrient Management (INM). A sample of ten experimental and ten control plots has been taken for each technology in two villages every year consecutively for 5 years period. Every year the farmers were changed from the same village. The study has revealed that the adopters of INM could get higher yield as compared to that by non-adopters. These technologies have been found cost-effective due to reduced cost per quintal production by Rs. 114. These technologies have been found to generate more income as the adopters could earn Rs.4105 ha<sup>-1</sup> as compared to that by the non-adopters. This was apparent from the results that saving in fertilizer cost by Rs. 94 and reduction in plant protection is 1004/- with reduced sprays by 1.4 times. The INM technologies do not have any negative impact on the quality parameters of cotton. These technologies will reduce the chemical fertilizer-consumption and enhance the productivity of cotton on sustainable basis with lower cost of production, which in turn would protect the environmental health and economic condition of the debt ridden cotton growers on a long-term basis.

**Key words** : Cotton production, Fiber quality, I N M Technologies.

## **Economic Analysis of Cotton Production Using Integrated Pest Management Technologies in Andhra Pradesh**

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#### ABSTRACT

This study has been undertaken to make cotton production in the state of Andhra Pradesh globally competitive by reducing the cost of production at farmer's level through adoption of new pest management technologies, namely Integrated Pest Management (IPM). A sample of ten experimental and ten control plots has been taken for each technology in three villages every year consecutively for 5 years period. Every year the farmers were changed from the same village. The study has revealed that the adopters of IPM could get higher yield as compared to non-adopters. These technologies have been found cost-effective due to reduced cost of per quintal production by Rs 129. These technologies have been found to generate more income as the adopters could earn Rs 4072/ha when compared to the non-adopters. The IPM technologies have reduced the cost of plant protection by 27 per cent. Total number of sprays reduced considerably by 3.3 sprays with adoption of IPM. This was apparent from the results that saving in plant protection by adoption of IPM is 1401/- The cost-benefit analysis has shown these technologies to be economically viable. These technologies will reduce the chemicals-consumption and enhance the productivity of cotton on sustainable basis with lower cost of production, which in turn would protect the environmental health and economic condition of the debt ridden cotton growers on a long-term basis.

**Key words :** Cotton production, Integrated Pest Management Technologies.

## Factors affecting Plant Protection status of IPM-Trained Dry Paddy Farmers of Bhandara District (Maharashtra State)

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#### ABSTRACT

Education, land holding, social participation, socio economic status, economic motivation, scientific orientation and mass media utilization were positively correlated with plant protection status. All the independent variables namely, Age, Education, Land holdings. Social participation, Socio economic status, cropping intensity, economic motivation, scientific orientation and mass media utilization could able to explain 62.21% ( $R^2 = 0.6221$ ) of variation in the dependent variables of plant protection status.

The three independent variables namely economic motivation ( $b=0.386588$ ), scientific orientation ( $b=0.241423$ ) and land holding ( $b=0.385218$ ) were major contributing factors in influencing or affecting plant protection status of the IPM trained farmers i.e. upto 60.80% ( $R^2 = 0.6080$ ) in step down regression. However in path analysis the highest direct effect was recorded by scientific orientation followed by land holding, socio economic status and economic motivation, whereas highest indirect effect was recorded by education followed by economic motivation, socio economic status and social participation.

**Key words :** Factors, IPM, Plant protection status, Trained.

## Extent of Knowledge About Improved Management Practices of Pineapple Growers in Karnataka

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#### ABSTRACT

The study was conducted in Karnataka state to assess the Marketing behaviour of pineapple growers and their problems in pineapple production and marketing aspects. The results revealed that (43.14%) of pineapple growers belonged to medium level of knowledge. Where as (33.14%) and (23.74%) of the respondents belonged to low and high knowledge category respectively. More than (70.00%) of pineapple growers were having knowledge about land management, irrigation and weed management practices.

**Key words** : Knowledge land management problems, Marketing behaviour.

## Extent of Participation of Farmers in Sujala Kalinganahalli Halla Watershed Project

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### **ABSTRACT**

Study was conducted during 2006-07 in Tumkur district of Karnataka. Majority of the respondents had medium extent of participation (64.77%) followed by high (28.33%) and low (7.5%) extent of participation. Majority of the respondents had medium extent of participation followed by high and low in activities like motivational meetings (62.50%, 26.67% and 10.83%), planning (68.34%, 23.33% and 8.33%), implementation (62.50%, 25% and 12.50%), Maintenance (67.50%, 28.33% and 4.17%) and evaluation (66.67%, 29.16% and 4.17%).

**Key words** : Evaluation, Implementation, Participation, Planning, Watershed.

### **Research Note**

#### **Response of Summer Blackgram to Irrigation Schedules and Weed Management Practices**

T Malliswari, P Maheswara Reddy and G Karuna Sagar

#### **Effectiveness of Indigenous Plant Powders against Pulse Beetle, *Callosobruchus chinensis* (L.) in Stored Chickpea**

K Ravindra Kumari, C V Rama Rao, P Arjuna Rao and V Srinivasa Rao

#### **Effect of Various Manurial Application on the incidence of Brown Spot of Rice**

S M Purushothaman S Anitha , C Beena , K Kathikeyan and P V Balachandran

#### **A Study on Constraints Encountered while Browsing Internet by the Students of Agricultural College, Bapatla - an Appraisal**

P B Pradeep Kumar, G Sivanarayana, Ch Ramesh Babu and R Srinivasulu

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