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### Effect of Drip Irrigation on Growth, Yield and Water Use Efficiency of Sunflower

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#### ABSTRACT

A field experiment was conducted in split plot design with four irrigation regimes – 1.0, 0.8 and 0.6 of Etm under drip and 1.0 of Etm under ridge and furrow (control) method as main plots and three population densities (spacings) – 30 cm x 30 cm, 30 cm x 45 cm and 30 cm x 60 cm in subplots in sunflower crop during summer, on sandy loam soil. The crop under drip irrigation scheduled at 1.0, 0.8 and 0.6 of Etm resulted in significantly higher seed yield (49, 48 and 44%), oil yield and water use efficiency over that of ridge and furrow method of irrigation (control) scheduled at 1.0 of Etm. In drip irrigated plots, field capacity was maintained in the crop root zone through out the crop growth and no stress was observed due to precise and slow application of small amounts of water near root zone at shorter interval. Further, in this system of irrigation, roots concentrated mainly in the upper soil profile and mostly secondary and fine in nature.

**Key words:** Drip Irrigation, Root Distribution, Spacing, Sunflower, Water Use Efficiency

### Contingent Crop Planning for Rainfed Situation in Alfisols of Southern Agro-Climatic Zone

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#### ABSTRACT

Field experiments were conducted during late *Kharif* of 2001 and 2002 in dry land farm of Regional Agricultural Research Station, Tirupati with an objective to find out suitable contingent crop for late *kharif* season. Three dates of sowing in main plot and seven crops in sub-plot, were tested in split plot design. Groundnut pod equivalent yield exhibited no significant difference among the three different dates of sowing during *kharif* 2001, (1<sup>st</sup> fortnight of September, 2<sup>nd</sup> fortnight of September and 1<sup>st</sup> fortnight of October). However, during the *kharif* 2002 significantly the highest groundnut pod equivalent yield was obtained at the end of August (1718 kg ha<sup>-1</sup>) followed by 2<sup>nd</sup> fortnight of September (1412 kg ha<sup>-1</sup>) and 1<sup>st</sup> fortnight of October (830 kg ha<sup>-1</sup>). Among different crops tried, the highest groundnut pod equivalent yield was obtained with field bean as vegetable (1759 and 2838 kg ha<sup>-1</sup> in 2001 and 2002 respectively) followed by castor (1194 kg ha<sup>-1</sup>) during 2001 and pigeonpea (2226 kg ha<sup>-1</sup>) and castor 1547 kg ha<sup>-1</sup>) during 2002. Significantly the lowest groundnut pod equivalent yield was recorded with sunflower during 2001 and groundnut during 2002. Net returns and benefit cost (B : C) ratio were the highest with field bean among different dates of sowing during both the years of study. During both the years of study all the crops (black gram, green gram, castor and pigeonpea) have performed well compared to groundnut, except sunflower in three dates of sowing in 2001 and sorghum in third date of sowing in 2002.

**Key words:** Contingent crop, Alfisols, Agro-climatic Zone.

# Effect of Weed Management Practices on Growth and Yield of Dry Sown Rice

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## ABSTRACT

A field experiment was carried out at the Agricultural College Farm, Bapatla to study the efficacy of herbicides and their integration with hand weeding on growth and yield of dry sown rice during *Kharif* 2004. Hand weeding twice i.e., at 20 and 40 DAS was found to be superior to the rest of treatments. Among all the treatments, pretilachlor @ 0.75 kg a.i. ha<sup>-1</sup> (PRE) and pyrazosulfuron ethyl @ 20 g a.i. ha<sup>-1</sup> (PRE) when supplemented with one hand weeding at 20 DAS was found superior to their supplementation with hand weeding at 40 DAS in reducing weed growth and recording higher crop growth parameters with high yield attributes next to hand weeding twice. Application of butachlor @ 1.5 a.i. ha<sup>-1</sup> (PRE) 2,4-D Na salt @ 0.8 kg a.i. ha<sup>-1</sup> (POST) at 20 DAS was found superior to herbicides applied alone in recording good crop growth parameters and yield.

**Key words** : Weed Management, Dry Sown Rice, Growth and Yield

# Acreage Estimation Studies in Chilli Using Remote Sensing

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## ABSTRACT

Chilli crop acreage estimation in Hubli taluk of Dharwar district, Karnataka was carried out for *kharif* 2002-03 by selection 26 ground truth sites using IRS ID LISS III imagery of 14<sup>th</sup> November 2002. The acreage estimation was done by running the supervised maximum likelihood classification. The acreage, thus estimated was compared with the Department of Horticulture estimates. The acreage under chilli crop in Hubli taluk was 14,224 ha and it showed a relative deviation of 7.27%.

**Key words** : Acreage Estimation, Chilli, Remote Sensing

# Weed Management for Efficient Use of Nitrogen in *rabi* Maize (*Zea mays* L.)

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## ABSTRACT

A field investigation was carried out at the Agricultural College Farm, Bapatla to study the effect of nitrogen and weed control measures in *rabi* maize (*Zea mays* L.). Density and drymatter of weeds increased significantly with successive increase in the levels of nitrogen from 50 to 150 kg N ha<sup>-1</sup>. Weed free check, two hand weedings and alachlor @ 1.5 kg a.i. ha<sup>-1</sup> + HW significantly reduced the weed population, dry matter and nitrogen uptake by weeds over weedy check and alachlor @ 1.5 kg a.i. ha<sup>-1</sup> alone. Hand weeding twice at 3 and 6 weeks after sowing showed significant effect in reducing weeds and increased yield at 100 kg N ha<sup>-1</sup> which was on a par with alachlor @ 1.5 kg a.i. ha<sup>-1</sup> + hand weeding at 6 WAS when compared to weedy check at 150 kg N ha<sup>-1</sup>.

**Key words** : *Rabi* Maize, Weed Management, Efficient Use of Nitrogen.

## **Productivity and Quality of Maize (*Zea mays* L) as Affected by Foliar Application of N and Zn at Flowering**

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### **ABSTRACT**

A field experiment was conducted at the Agricultural College Farm, Bapatla, on clay loam soils during *rabi* season of 2003-04. Chlorophyll content of ear leaf measured at 50% tasseling was significantly high with the application of 50 kg ZnSO<sub>4</sub> ha<sup>-1</sup> to soil than that with any other treatments. At 50% silking, chlorophyll content was significantly improved with application of 2 per cent urea and 0.5 per cent ZnSO<sub>4</sub> spray at 50% tasseling. Dry matter production at all sampling dates was significantly higher with the application of 50 kg ZnSO<sub>4</sub> ha<sup>-1</sup> to soil than that with any other treatment. Similarly, application of ZnSO<sub>4</sub> @ 50 kg ha<sup>-1</sup> to soil along with N P K gave significantly higher yield and yield attributes except test weight. However, the quality parameters such as protein and Zn contents of grain and stover, and density of grain were improved significantly with the spray application of 2 per cent urea and 0.5 per cent ZnSO<sub>4</sub> at 50% silking than that of the rest of the treatments.

**Key words** : Maize, Quality, Foliar Application, Zinc, Urea.

## **Physiological Parameters of Groundnut as Affected by Moisture Conservation and Fertilization**

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### **ABSTRACT**

Four *in-situ* moisture conservation treatments *viz.*, flat bed, ridge and furrow, broad bed and furrow and deep ploughed seed beds and three fertilization treatments *viz.*, control, 50% RF + FYM 5 t ha<sup>-1</sup> and 100% RDF were tested on GG 20 groundnut during rainy season. Results showed that plant height, dry matter, accumulation chlorophyll a, chlorophyll b and total chlorophyll, pod and haulm yields were higher in ridges and furrow, broad bed and furrow and deep ploughed seed beds over flat bed. Application of 100% RDF registered significantly the highest plant height, dry matter accumulation chlorophyll a, total chlorophyll, crop growth rate, relative growth rate, net assimilation rate, pod yield and haulm yields. Leaf area index was un influenced by moisture conservation treatments whereas number of branches plant<sup>-1</sup> were equally influenced by both moisture conservation and fertilization treatments.

**Key words** : Groundnut, Fertilization, *In-situ* Moisture Conservation, Physiological Growth Parameters.

## **Performance of Fodder Maize – Coriander Sequence at Different FYM and Nitrogen Levels**

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### **ABSTRACT**

A field experiment was conducted to study the performance of fodder maize – coriander sequence at different FYM and nitrogen levels at the Agricultural College Farm, Bapatla during 2004-05. Application of FYM @ 10 t ha<sup>-1</sup> significantly improved the growth attributes and green and dry fodder yields of fodder

maize. Quality parameters like crude protein and total ash contents were improved significantly and crude fibre content decreased with 10 t FYM ha<sup>-1</sup>. Similarly, 150 kg nitrogen ha<sup>-1</sup> significantly increased the growth, fodder yield and quality of fodder maize. Dry matter production, green and seed yields of succeeding coriander were significantly increased when 10 t FYM ha<sup>-1</sup> was applied to preceding fodder maize. As the nitrogen level was increasing from 60 to 150 kg ha<sup>-1</sup> to preceding fodder maize, a favourable effect on succeeding coriander was noticed.

**Key words** : Fodder Maize – Coriander Sequence, FYM, Nitrogen Levels.

## **Effects of Salinity on Nitrate Reductase Activity and Proline Accumulation in Desi Cotton (*Gossypium herbaceum* L.)**

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### **ABSTRACT**

A pot culture experiment was conducted with three salinity levels (0, 4 and 8 EC levels) to know the effects of salinity on nitrate reductase activity and proline accumulation with a view to use these parameters as indices for selecting tolerant genotypes to salinity stress in herbaceum cotton. The results revealed that, in all the genotypes the nitrate reductase activity decreased whereas proline accumulation increased with increasing salinity levels. The genotypes Dhumad, Jayadher, GCot 13, GCot 17 and GCot 21 were found to be salt tolerant as they showed high nitrate reductase activity and more proline accumulation at higher salinity levels also.

**Key words** : Nitrate Reductase Activity (NRA), Proline Accumulation, Salinity Tolerance and Herbaceum Cotton

## **Correlation and Path Analyses in Maize**

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### **ABSTRACT**

Genotypic and phenotypic correlation studies in maize indicated that plant height, ear height, tassel length, chlorophyll content, leaf area index and total biomass were positively associated with grain yield. Leaf area index exhibited high genotypic correlation than phenotypic correlation. Path coefficient analysis revealed that total biomass followed by leaf area index, chlorophyll content, plant height, days to 50% silking, anthesis-silking interval and days to 50% maturity contributed directly towards grain yield per plant. Though the character anthesis-silking interval had direct positive contribution towards grain yield, it had indirect negative influence through days to 50% tasselling, days to 50% silking, ear height and tassel length. Effective kernel filling period and days to 50% tasselling exhibited negative influence both directly and indirectly.

**Key words** : Correlation, Path Analysis, Maize, *Zea mays* L.

## **Correlation and Path Analyses among Floral Characters of Drought Resistant Cultures of Rice**

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### ABSTRACT

Twenty five drought resistant cultures were raised at Agricultural College and Research Institute, Killikulam in randomized block design and replicated thrice and the relationship between seven characters namely ovary length, ovary width, style length, stigma length, anther length, anther width, filament length with pollen fertility was compared through correlation and path analyses. Correlation studies revealed that ovary length has positive and significant association with pollen fertility. Ovary length, stigma length, anther width and filament length has positive direct effect on pollen fertility. However, only ovary length has positive significant association with pollen fertility. Hence selection of spikelets based on ovary length will increase the pollen fertility

**Key words:** Drought Resistance, Rice

## Variability, Heritability and Genetic Advance in F<sub>2</sub> Generation of India Mustard [*Brassica juncea* (L) Zern and Coss]

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### ABSTRACT

Genetic variability, heritability and genetic advance for 13 characters were obtained from 28 crosses of Indian mustard. Significant differences were obtained for all the characters indicating the diverse genetic nature of the crosses under study. The highest GCA and PCA was observed in days to 50% flowering, secondary branch / plant, number of siliquae/plant and test weight. High heritability combined with high genetic advance as per cent of mean were observed in seed yield / plant, plant height, secondary branch / plant, number of siliquae / plant and test weight indicating the involvement of additive genes in their expression and possibility of improving these characters through selection.

**Key words :** Heritability, Indian Mustard.

## Correlation and Path Coefficient Analyses of Seed, Plant Growth, Quality and Yield Characters in Rice (*Oryza sativa*. L.)

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### ABSTRACT

Thirty rice genotypes were evaluated during *kharif* 2002 to study the nature and extent of relationship among seed, plant growth, quality and yield characters in cultivated rice (*Oryza sativa* L.) Relative Growth Rate (RGR) exhibited positive association with protein content and rate of germination. Rate of germination showed positive association with biomass production plant<sup>-1</sup>, RGR and plant height at 15 days interval upto panicle initiation stage indicating that higher rates of germination produce more vigorous seedlings leading to accumulation of more biomass, increase in RG and plant height. Test weight had positive association with biomass production plant<sup>-1</sup>, plant height, rate of germination, number of grain panicle<sup>-1</sup> and grain yield plant<sup>-1</sup> indicating efficient partition of photosynthates to grains and finally increasing the grain yield. RGR had negative direct effect and negative correlation with grain yield. Plant height showed positive direct effect and positive association with grain yield. Rate of germination had positive direct effect on grain yield and had indirect effect via number of productive tillers plant<sup>-1</sup>, panicle length and protein content, test weight and number of grains panicle<sup>-1</sup>. Number of grains panicle<sup>-1</sup> had positive direct effect which was approximately equal to its correlation coefficient with grain yield.

**Key words :** Correlation, Direct Effect, RGR, Biomass, Rice

## **Hybrid Vigour of Quantitative and Qualitative Traits in Chilli (*Capsicum annuum* L.)**

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### **ABSTRACT**

Forty two F<sub>1</sub> hybrids involving seven female and six male parents were produced in chilli (*Capsicum annuum* L.) in a line x tester design. Fourteen economic characters contributing to dry fruit yield were studied. Based on relative heterosis, heterobeltiosis and *per se* performance some crosses were identified for dry fruit yield per plant. The crosses V. local x LCA 315, G4 x Aparna, LCA 334 (E) x Pusa Jwala, G5 x LCA 333, LCA 334 (D) x LCA 357, LCA 353 x LCA 333, LCA 353 x LCA 424 and LCA 353 x LCA 357 manifested desirable heterosis for other characters also including dry pod yield per plant and these crosses are found to be promising.

**Key words** : Hybrid vigour, Chilli.

## ***In-Vitro* Performance of Two Prominent Sugarcane (*Saccharum officinarum* L.) Varieties**

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### **ABSTRACT**

An efficient and direct shoot multiple induction from apical meristems of two prominent sugarcane varieties Co86032 and CoM 88121 was tried. The carefully excised apical meristems of 0.1 mm diameter and 2.5 mm length cultured on MS Medium augmented with 1 mg/l BAP and 0.1 mg/l NAA under aseptic condition showed fast initiation within 48 to 52 days for Co86032 and CoM-88121, respectively. MS medium along with 2 mg/l BAP and 0.1 mg/l NAA produced maximum shooting within 36 to 38 days in both the varieties. After profuse shooting obtained among them heightened plantlets were carried over for rooting. The root initiation was achieved by MS medium augmented with 1 mg/l IBA and 3 mg/l NAA. The period required for rooting in two varieties was different. Variety CoM 88121 took 22 days as against 30 days for Co 86032. The total period required for hardening and ready to field planting was 210 days for Co 86032 and 201 days for CoM 88121.

**Key words** : *In-Vitro*, Sugarcane, Apical Meristem

## **Line x Tester Analysis for Combining Ability in Groundnut (*Arachis hypogaea* L.)**

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### **ABSTRACT**

Fifteen crosses were affected with 5 lines and 3 testers in line x tester mating design during *kharif*, 2002 and these were studied with parental lines for their combining ability in randomized complete block design with three replications at Agricultural Farm, Bapatla during *rabi*, 2002-03. Predominance of non-additive gene action was recorded for nine important yield attributes including pod yield per plant. Both additive and non-additive gene action were found to be important for five metric traits. Additive type of gene action was governing the inheritance of character shelling percentage. The cultivar, Kadiri-4 was adjudged to be the best general combiner for pod yield as well as harvest index. The varieties Narayani, Tirupati-4 and Kalahsti were also found to be the good general combiners for six, four and three metric traits,

respectively. The cross combinations of the parental lines *i.e.*, Kadiri-4, Narayani, Tirupati-4 and Kalahasti are likely to throw transgressants for most of the yield attributes as the parents possessed high gca effects which amounted to additive and additive x additive type of gene action which is exploitable and fixable in nature in the segregating progenies.

**Key words** : General Combining Ability, Specific Combining Ability, Additive Gene Action, Non-additive Gene Action.

## **Application of Proteins as Biochemical Markers for DUS Testing of Rice (*Oryza sativa* L.) Varieties**

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### **ABSTRACT**

Characterization of 33 rice varieties which are cultivated in different agro-ecosystems were undertaken using biochemical marker system *i.e.*, total soluble protein profile. The average similarity index, average heterozygosity values for polymorphic loci were 0.50 and 0.54, respectively. The protein marker system generated 24 polymorphic markers (75%) out of a total of 32 bands. The probability of obtaining an identical match by chance between two genotypes was  $5 \times 10^{-2}$ . The possible application of these markers for DUS (distinctness, uniformity and stability) testing for the grant of plant variety protection is discussed.

**Key words** : Rice, Total Soluble Protein, DUS testing

## **Classical and Restriction Selection Indices in AICSMIP Group of Genotypes of Finger Millet [*Eleusine coracana* (L.) Gaertn.]**

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### **ABSTRACT**

In fifty diverse genotypes of finger millet obtained from All Indian Coordinated Small Millets Improvement Project (AICSMIP, Bangalore) GE genotypes) using discriminant function technique revealed that the functions including yield per plant and productive tillers per plant as one of the components recorded high expected genetic advance as well as relative efficiency. The index in which all the nine characters were included except 1000 seed weight showed maximum genetic advance as well as relative efficiency suggesting that simultaneous selection for all these characters would be better over straight selection for yield.

**Key words** : Selection Indices, Restricted Selection Indices, Genetic Advance and Finger Millet.

## **Heterosis for Seedling and Field Characters in Rice**

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#### ABSTRACT

This experiment involving 5 lines, 3 testers and 15 crosses indicated significant relative heterosis and heterobeltiosis values for several root and shoot characters in nursery and tiller number and panicle length in field in rice hybrids. The lines BOA, Zhen Shan 97A, UIA, Jin 23A and testers Ming Hui 63, T D 366 resulted in good hybrids when crossed, as also indicated by combining ability values and may be utilized in hybrid rice breeding programmes.

**Key words** : Heterosis, Rice, Hybrid Rice

### **Restriction Selection Indices in Roselle (*Hibiscus sabdariffa* L.)**

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#### ABSTRACT

Fifty genotypes were evaluated for the construction of restricted selection indices in roselle. Restricted selection indices using single case restriction of 50% flowering, plant height, number of internodes, internodal length, basal stem diameter, bark thickness, fibre-wood ratio and fibre length gave highest genetic advance for fibre yield/pot where as the restriction of fibre yield/ plant and fibre yield/plot gave highest genetic advance for plant height.

**Key words** : Restricted Selection Indices, Roselle.

### **Effect of Weather Parameters on the Population Dynamics of *Spodoptera litura* (F.) and *Spodoptera exigua* (Hb.) on Onion**

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#### ABSTRACT

A field experiment was carried out during *rabi*, 2003-04 at Yarrabalem Village, Mangalagiri Mandal, Guntur district to study the influence of weather parameters on the population dynamics of *Spodoptera litura* (F.) and *Spodoptera exigua* (Hb.) on onion. The pest activity was observed for ten weeks commencing from the 46<sup>th</sup> to 3<sup>rd</sup> standard week with a peak larval density of 23.83 per ten plants during the 52<sup>nd</sup> standard week with respect to *S. litura* and 21.03 per ten plants during the 1<sup>st</sup> standard week in the case of *S. exigua*. There was a significant and negative correlation between the larval population of both the pests and the remaining parameters *i.e.*, minimum temperature, morning and evening relative humidity and rainfall exhibited non-significant relationship.

**Key words** : Weather Parameters, *Spodoptera litura*, *Spodoptera exigua*, Onion

### **External Morphology and Genitalia of Mango Leaf Cutting Weevil, *Deporaus marginatus* (Pascal) (Curculionidae : Coleoptera)**

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#### ABSTRACT

External morphological features including genitalia of the adult male and female of mango leaf cutting weevil, *Deporaus marginatus* (Pascal) were studied. Adult sexual description was done on the basis of size, shape and colour of the body.

**Key words :** Mango Leaf Cutting Weevil, External Morphology and Genitalia

### **Incidence of Lepidopteran Pests of Castor (*Ricinus communis* L.)**

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#### ABSTRACT

The peak incidence of semilooper (*Achaea janata* Linn.) and tobacco caterpillar (*Spodoptera litura* Fab.) was observed during the first week of December and the fourth week of November, respectively. The incidence of shoot and capsule borer (*Conogethes punctiferalis* Guen.) was high during the first week of March. Correlation studies revealed that the semilooper population was negatively and significantly correlated with minimum temperature, positively and significantly correlated with morning relative humidity. In case of tobacco caterpillar both maximum and minimum temperatures were negatively and significantly correlated with the pest population. While morning RH was positively and significantly correlated with tobacco caterpillar population. With regard to shoot and capsule borer maximum temperature was positively and significantly correlated with capsule infestation, while morning and evening relative humidities were negatively and significantly correlated.

**Key words :** *Achaea janata*, *Spodoptera litura*, *Conogethes punctiferalis*, Castor

### **Bioefficacy of *Bacillus thuringiensis* Ber. as Formulation, Pure Culture and Culture Filtrate Against *Spodoptera litura* (Fab.)**

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#### ABSTRACT

The median effective concentration (EC<sub>50</sub>) values for the three forms of *B.t.* viz., formulation (Dipel 8L), pure culture (cells) and culture filtrate are 0.26% (vol./vol),  $7.5 \times 10^7$  cells/ml and 1:34 dilution, respectively with reference to 50 per cent successful pupation after allowing final instar larvae of *S. litura* to feed on *B.t.* treated castor leaves continuously for three days. *B.t.* culture filtrate was more effective against the final instar larvae of *S. litura* in resulting higher larval mortality, feeding inhibition and reduction in pupal weights, pupation and adult emergence compared to the same effects due to formulation and pure culture of *B.t.*

**Key workds:** *Bacillus thuringiensis*, *Spodoptera*

### **Effect of Gypsum and Zinc Application on Growth and Yield in Groundnut (*Arachis hypogaea* L.)**

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#### ABSTRACT

A field experiment was conducted to study the effect of gypsum and zinc application on growth and yield in two different cultivars of groundnut. Application of different levels of gypsum significantly increased the number of branches, root dry weight, leaf area index and flower to pod ratio and thereby yield of

groundnut and increased further when zinc as zinc sulphate was added with gypsum. Highest kernel yield was obtained with gypsum @ 750 kg ha<sup>-1</sup> + Zn @ 25 kg ha<sup>-1</sup>, followed by gypsum @ 500 kg ha<sup>-1</sup> + Zn @ 25 kg ha<sup>-1</sup>. Among the two cultivars cv. G-201 (semi-spreading type) was more responsive to gypsum and zinc application and superior to cv. TMV-2 (bunch type).

**Key words :** Gypsum, Zinc, Groundnut

## **Influence of Teak Based Agroforestry Systems on the Yield and Yield Components of Groundnut**

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### **ABSTRACT**

A field experiment was conducted during kharif 2004 to study the influence of teak based agroforestry systems on the yield and yield components of associated crop – groundnut at Main Agricultural Research Station, Dharwad. The experiment was laid out in a split-split plot design with 4 replications and 16 treatments. The results indicated that the yield and yield components (number of pods per plant, hundred kernel weight, shelling percentage and harvest index) increased with increase in distance from teak row and also recorded higher on Western side as compared to Eastern side in all teak based agroforestry systems. The extent of reduction of pod yield was 41.17, 37.73 and 39.69% in association with teak, teak + grass and teak + subabul respectively compared to sole groundnut.

**Key words:** Agroforestry, Teak, Subabul, Grass, Groundnut

## **Dual Responsibilities of Women Headed Households**

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### **ABSTRACT**

Data on 90 women belonging to divorce(30), widow(30) and migration(30) groups were interviewed with a developed schedule to study how the lone parenthood raises the family responsibilities of women. An important revelation of the study is that, "Home making" responsibility was 'most often' attended responsibility and "Social" responsibility was considered a 'rare' responsibility. Among child related responsibilities, "Discipline" was assumed 'most often' attended responsibility. As age of women and duration of headship increased the family responsibilities as well as stress were decreased. There were negative and substantial direct effects of age, income, family size, duration of headship increased. the family responsibilities as well as stress were decreased. There were negative and substantial direct effects of age, income, family size, duration of headship and occupation in order of importance on the family responsibilities of women. The direct effects of other variables i.e. number of children, education, gender role orientation and self-esteem were positive on the dependent variable i.e. family responsibilities.

**Key words:** Women Headed Household, Dual Responsibilities, Lone Parenthood, Self-esteem, Androgynous Personality, Stress.

## **Cotton a Boon Turned Bane - A Case Study**

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### **ABSTRACT**

The case study revealed cotton crop a boon turned bane to a cultivator which took his life. Suicide is the act of intentionally ending ones own life. Leaving back the family members to suffer. Emphasized on balanced blending of indigenous technology as well as modern technology with maximinicum principle.

Balanced thinking while taking decisions related to cotton crop cultivation and creating awareness towards balanced debts followed by inculcating problem solving skills.

**Key words:** Cotton, Maladies, Remedies

## **Opinion and Suggestions on Radio Programmes by the Farmers of Warangal District in Andhra Pradesh**

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### **ABSTRACT**

A study was conducted in Warangal district of Andhra Pradesh to know the opinion and suggestions of farmers about radio programmes. Majority of the listeners had expressed their satisfaction over the present broadcast duration, suitability, timeliness, clarity, completeness and usefulness. Education, extension contact were positively significant with opinion of radio programmes at 0.01 level of probability and experience in farming, age were shown negatively significant relationship with opinion of the radio programmes at 0.05 and 0.01 level of probability, respectively.

**Key words:** Radio Programmes, Farmers

## **Perception of Drudgery of Rural Women in Farm Activities**

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### **ABSTRACT**

The present investigation was carried out in Sriakulam district of Andhra Pradesh with a major objective to study the perception of drudgery of farm women in farm activities. Three mandals out of 37 mandals in the district were selected randomly for the study. A total of 120 farmwomen comprising of 60 landless labourers and 60 family labourers were selected for the study. The results on perception of drudgery revealed that the farmwomen perceived drudgery in many of agricultural operations carried out by them.

**Key words:** Drudgery, Rural Women

## **Growth Comparisons of Turmeric upto 2020 AD**

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### **ABSTRACT**

Studies undertaken to measure the growth rates of turmeric and to estimate the future projections up to 2020 AD by using the regression equations, revealed that turmeric production would increase considerably in Andhra Pradesh and India.

**Key words:** Turmeric, Growth Comparisons

## **Research Notes**

### **Effect of New Post Emergence Herbicides on Nutrient Uptake by Rice-fallow Blackgram [*Vigna mungo* (L.) Hepper] and Associated Weeds**

Gousia Begum and A S Rao

**Effect of Different Levels of Nitrogen and Potassium on  
Transplanted Chilli**

S Bharathi and Md Mujeeb Khan

**Variability in Drought Tolerant Rice**

C R Ananda Kumar and S Vinothini

**Genetic Variability and Character Association  
in Pigeonpea [*Cajanus cajan* (L.) Millsp]**

D Satish Kumar, Y Koteswara Rao, P V Rama Kumar and V Srinivasa Rao

**Effect of Different Solid Media on Growth and Sporulation  
of *Colletotrichum gloeosporioides* (Penz.) Sacc**

B Vidya Sagar and A F M Akbar

**“SWOT” Analysis of Cotton Cultivation in Andhra Pradesh**

M Venkatakonda Reddy and P Venkataramaiah

**Profile of the Jute Farmers of Nadia district  
of West Bengal**

Pradipta Acharya, Ch Ramesh Babu and P Venkataramaiah

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