international scientific journals from Turkey. This study will help in giving direction to the future biotechnological studies in these crops.

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ORAL PRESENTATION

**Biotechnology in Agriculture**

### In vitro regeneration of Turkish dwarf chickling (*Lathyrus cicera* L.) from longitudinally sliced cotyledon node explants

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The forage legume cicera chickling (*Lathyrus cicera* (L.) D.C.) distributed in Mediterranean region is gaining importance in terms of economy and agriculture in Turkey. However, full potential of the legume has to be realized yet due to the presence of neurotoxin, β-N-oxalyl-L-a,β-diaminopropionoc acid (ODAP) causing lathyrism. This study aimed to develop efficient micropropagation system using longitudinally sliced cotyledon node explants for use in Agrobacterium mediated genetic transformation in the future. In this study, instead of the agar as a gelling agent alternative gelling agent isubgol was used. The results showed that the maximum number of shoots per explant was achieved on MS medium solidified with 10 g/l isubgol gelled medium containing 0.60 mg/l BAP–0.2 mg/l NAA. Shoots were rooted by pulse treatment with 30 mg/l IBA for 5 min followed by culture on 10 g/l isubgol gel solidified MS medium. The results showed 80% rooting in treated shoots. The rooted plantlets were transferred to pots containing sand and organic matter in pots and acclimatised.

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ORAL PRESENTATION

**Entomology and Plant Pathology**

### Genotyping of *Fusarium graminearum* and *F. culmorum* isolates by microsatellite markers

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Correct diagnosis of the causal agents and genotyping of them by using PCR based techniques is necessary for plant pathology in agriculture and then for struggling with diseases. Twenty *Fusarium culmorum* and 43 *F. graminearum* isolates from Turkey and Iran were analyzed by polymerase chain reaction (PCR), in this study. Ms-Fg6808, FusSSR17 and FusSSR22 microsatellite markers were amplified in all isolates in order to determine repeat motif and number differences into (GAAA)n, (GA)n and (GAT)n, respectively. Amplification product sizes were in the range of 261–407 bp for Ms-Fg6808, 176–250 bp for FusSSR17 and 193–309 bp for FusSSR22. Four isolates belong to each marker were selected and sequenced. Each of repeat motifs in all sequenced isolates showed repeat number differences. Single nucleotide changes were detected in all isolates for FusSSR22 and in only F3 for FusSSR17 (T → A, A → G, respectively). Genetic variation among microsatellite locus in these isolates was also determined (max 40%).

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ORAL PRESENTATION

**Entomology and Plant Pathology**

### The influence of western corn rootworm – *Diabrotica Virgifera Virgifera* Le Conte attack, upon quality of corn seeds

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*Diabrotica virgifera virgifera* Le Conte is considered one of the most important pests of corn grown in monoculture. Damage caused by the Western Corn Rootworm is considerable. The attack is produced by larvae and adults, serious affecting the grain production. Following laboratory analyzes may notice a decrease in the values of all track quality indicators for ears harvested from plants attacked by *Diabrotica virgifera virgifera* compared with the cobs from the healthy plants. Values of fat content of attacked cobs ranged from 2.76 and 4.23%, protein content ranged from 9.1 to 10.6% and starch between 69.7 and 70.5%. The average fat content of the cobs attacked percentage decreased by 11%, protein content by 16% and starch content dropped by less than one percent.

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ORAL PRESENTATION

**Food and Nutritional Sciences**

### Growth and biomass profile of *Spirulina* (*Arthrospira*) *Platensis* production from Turkey (Nazilli-Aydın)

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The filamentous cyanobacterium *Spirulina* (*Arthrospira*) is produced commercially all over the world. And dried *Spirulina* biomass product is a valuable food supplement, feed and is used as a food coloring and additive. In this study, *Spirulina* was grown in open raceway ponds in Aegean Region (Aydın-Turkey), and several physicochemical (e.g., temperature, pH, dissolved oxygen concentration, conductivity and irradiance) and biological (e.g., biomass concentration and yield) variables were studied. Dissolved oxygen concentration in the cultivation ponds ranged between 10 mg $l^{-1}$ in winter (110% of $O_2$ saturation) and 30 mg $l^{-1}$ in summer (230% of $O_2$ saturation); a clear decrease of biomass concentration was found when dissolved oxygen was >20 mg $l^{-1}$. Neither biomass concentration nor productivity was saturated at the maximum temperature achieved in the open pond during this study (approx-