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Abstracts
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characteristic as well as fatty acid composition and antioxidant capability. The second one aimed to study effect of environment on fatty acid composition and antioxidant content of 15 sesame varieties under five environments. Field experiments were, therefore, conducted in five locations i.e. Ubon Ratchatani, Chiang Mai, Petchaboon, Nakhon Ratrasima and Lopburi provinces, in 2004-2005. The results showed that oil content of 83 sesame lines varied from 33-53% and the major fatty acids found in sesame oil were oleic acid (31-51%) and linoleic acid (36-47%). There were 37 sesame lines having high antioxidant capability (IC<5) of which the highest one of each location were white-seeded white lines sm 177 and sm 190, black-seeded sesame lines sm 208 and M 6070. Oil content was varied with environment and interaction between genetic and environment up to 38-50%.

The brown-seeded sesame line A30-15 gave the highest oil content (50.5%) when grew in Ubon Ratchatani in the year 2005, followed by Ubon Ratchatani 1 which grew in Ubon Ratchatani in the year 2004. Oleic and linoleic acid content were found between 59-63%, they were varied with environment up to 54-83%, with genetic only 6% and with interaction between genetic and environment 30-40%.

The sesame line giving the highest oleic acid and linoleic acid were A30-15 when grew in Lopburi in the year 2004 (60.9%), and white-seeded sesame WL 9. When grew in Ubon Ratchatani in the same year (60.2%). Moreover, growing of sesame in Chiang Mai gave the highest oleic acid (45.5%) whereas in Lopburi gave the highest linoleic acid (36.4%). Sesame lines can be divided by agglomerative hierarchical into 7 groups of both oleic and linoleic acid and divided into 5 and 6 groups of oleic and linoleic acid, respectively. Similar to fatty acid composition, antioxidant capability of sesame lines were affected by environment as high as 52%, genetic only 19% and interaction between genetic and environment 29%. Sesame lines can be divided by agglomerative hierarchical into 7 groups whereas growing environments can be divided into 4 groups. White-seeded sesame WL9, NS, Ubon Ratchatani 2, No172 and No178 have high antioxidant capability especially, NS was the variety which had the highest amount of antioxidant. The result also demonstrated that growing of sesame in Nakhon Ratrasima, Chiang Mai and Petchaboon yielded the highest antioxidant capability. We, therefore, conclude that in order to obtain high content of oleic acid, linoleic acid or antioxidant, suitable growing area need to be selected for growing of the sesame lines indicated in this study.

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CS2-S1, P73
Study of Genetic Diversity in Sunflower Promising Inbred Lines Using Morphological Traits
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One of the most important factors in breeding programs advancement is the evaluation and quantification of genetic diversity in breeding population. In the preparation of pre-breeding population and hybrid production, selection of convenient parents that are efficiently distant, is so important. In order to precise description for the sunflower genetic stocks of the Oilseed Department (Os) and Plant Improvement Institute, Karaj, Iran, morphological traits and oil percentage of 43 promising inbred lines were studied. The inbred lines were divided into 4 groups. White-seeded sesame WL9, NS, Ubon Ratchatani 2, No172 and No178 have high antioxidant capability especially, NS was the variety which had the highest amount of antioxidant. The result also demonstrated that growing of sesame in Nakhon Ratrasima, Chiang Mai and Petchaboon yielded the highest antioxidant capability. We, therefore, conclude that in order to obtain high content of oleic acid, linoleic acid or antioxidant, suitable growing area need to be selected for growing of the sesame lines indicated in this study.

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CS2-S1, P76
Characterization and Evaluation of Cotton (Gossypium Spp.) Germplasm in Thailand
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The ultimate objective of this research was to characterize and evaluate cotton germplasm which has been collected and developed in Thailand and introduced from abroad since 1963 using agronomic and morphological traits based on Cotton Descriptors of IBPGR. Four species of the genus Gossypium were identified. These species include two diploids G. herbaceum and G. arboresum, and two tetraploids species, G. hirsutum and G. barbadense. The experiment was conducted at Nakhon Sawan Field Crops Research Center, Takfa, Nakhon Sawan, Thailand in 2004-2006. Ninety cotton accessions were grown together with five cultivated varieties. Phenotypic variation was highly significant (P<0.01) for all characters of yield and fiber quality. There was large variation among these genotypes for plant height, number of the fruiting branch, number of the vegetative branch, pigment gland content, pubescence and other agronomical important traits. Ginning percentage of G. barbadense G. herbaceum and G. arboresum was significantly lower than the average of cultivated varieties. All accessions of G. barbadense were susceptible to Cotton Leaf Curl Disease. However this species is superior in fiber length and micronaire. It is concluded that the G. barbadense is a useful germplasm resource for genetic improvement of fiber quality.

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CS2-S1, P77
Evaluation of Oat Genotypes (Avena sativa L) at Seedling Stage in Salt Stress
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CS2-S1, P75
Induction of Embryogenic Callus and Plant Regeneration from Nodes of Greenhouse Grown Plants of Alstroemeria Cv. Fuego
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The aim of study was assessed clonal variability of starch and sugar soluble (SS) in wood recorded 25 clones exchange trial at 30 old. A second field clone trial was used for 15 years trees, with 18 clones. The 25 clones tested in an international clone exchange program which is now 30 years.

The main source of variation may be the status of the bark. Nevertheless, there was large variation among these genotypes for plant height, number of the fruiting branch, number of the vegetative branch, pigment gland content, pubescence and other agronomical important traits. Ginning percentage of G. barbadense G. herbaceum and G. arboresum was significantly lower than the average of cultivated varieties. All accessions of G. barbadense were susceptible to Cotton Leaf Curl Disease. However this species is superior in fiber length and micronaire. It is concluded that the G. barbadense is a useful germplasm resource for genetic improvement of fiber quality.

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