Global Scientific JOURNALS

GSJ: Volume 9, Issue 1, January 2021, Online: ISSN 2320-9186
www.globalscientificjournal.com

# The effects of Inbreeding on quantitative characters

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It means the hybrid between two person have a high degree of affinity.

The degree of affinity different between the degree of affinity different between the intermarried individuals it result of self - pollination and it is a high kind of the inbreeding in plant or between others… etc

The research has shown the inbreeding lead to in the most of the time to the depression in the kind qualities and appearance of many of harmful genes effects such as :lethal and semi-lethal genes.

The inbreeding split up according the degree of kindship between the inter married individuals:

1-inbreeding between person have distant relative and the results showed F1from self pollination in plant it is always less from the parents in size and yield and it continue by depression from generation to other until it arrives to $7^{th}$ or $12^{th}$ generation

It effect to continue inbreeding in the strain characters we have example about plant have a self pollination have a couple of gene Aa and have a self pollination from this person we will get about helf of the offspring mixture and quarter of A and Anative quarter about the

gene 1AA:2Aa:1aa it is Anative of gene where 50%from the offspring is a mixture,50%another it give similar in dividuals at the self pollination the last example explain the inbreeding by the self pollination result of drop of the rate of factor by 50%from the generation of the symmetric Aa.

The studies have proven it the inbreeding in the melanogaster drosophila it uses in the genetic studies it lead to inbreeding characters such as: the rate of hatching eggs and chest length and wing length subsequently of the insect is body Aghwan(2005) the aim of inbreeding get the pure strains from mixed pollination crops the mixed pollinated means the plant leaves it is natural state it is confused as result we went out when balanced it humoral state it called inbreeding depression we get to the genetic pure strains and be entered to the hybridization and the rate of cross pollination in

the plant between 1-100% and the more it gets the rate of cross pollination and it high of plant .it have inbreeding the greeter it degradation indoor breeding is severe(*http:asoa.forumotion.)*the greater relationship of kinship between married individuals and the most severe types it is self pollination it happen in the plant where as the coefficient of kinship in mating 100%or the right one (almallah &dabdub 2000)An another way to inbreeding addition to self pollination it is sib mating and full sub mating family and half sib mating family and the retrograde pollination and Al athary pointed out to the way of inbreeding

1-to get a new genetic structure we can keep it to product a seed for many generation like the yield of self pollination with fixed the genetic structure .

2-produce the original parents for the commercial hybrids .

3-reducing the frequency of harmful recessive genes in varieties are use as parents for combination items which propagate vegetatively . Aluthary(1992) intensity of inbreeding it has an effect in the quantitative characters it measuring by coefficient of inbreeding it known the rate of imperfection inbreeding heterozygosity site As a result of mating individuals they are related symbolized F the higher of value F the relative proportion of groups are not similar Decreases in relative amount equal F-1 the coefficient of inbreeding F poses from right one (Almallah &Dabdub2000)inbreeding have a important to quantitative genetic characters in clouded two side first one effect it about a performance rat for studied quantitative characters second side effect to variance of the characters and from

appearances continuous inbreeding to get decrease biological fitness it called inbreeding depression .this phenomenon get a result election process continues for pure strains for many generations because the inbreeding uses to show recessive traits it should be noted to the genetic impact for depression it result inbreeding linked with heterosis phenomenon for quantitative characters for hybrid for many generations because subscription genetic sites themselves in both cases with traits that show genetic inbreeding Ali (1988) showed that is all East(1963) Reached to get inbreeding depression phenoment after the studied of about conclusion and self pollination lead to insulation of different strains in the many of characters and many strains in depression in the power of growth and ability to reproduction even the decline and the inbreeding in the conclusion and self pollination

plants lead to insulation of plant have a many characters lead to die and weekness because lack of genetic differences lack of division of genetic conflict lead to lack of growth strength .

The genetic expression of inbreeding depression

The reasons of the depression result the inbreeding increase sites or homozygous (AA,aa)and heterozygous (Aa)made up that you consist because mating relays there are several theories that explain this phenomenon it happen in the parental varieties through the generations result continuous genetic isolation when self pollination operation happen or implementation one of the ways inbreeding lead to isolation of harmful recessive gene and some dominance gene reflect damage and depression for the economic quantitative characters.

The good biological viability for any quantitative characters always it tends to have the highest standard of dominance variance and result of continuous inbreeding will be formed homozygous genetic structures lead to inbreeding in this character. Sanvi centra and Hallauer (1993),Falconer (1989), Benson and Hallauer (1994)

Explain inbreeding depression inclouded two levels

1-dominance level for quantitative characters

2- the range level or inbreeding coefficient amount the greater dominance gene effect for characters.

The more depression this trait result of inbreeding especially the late generations so showed there is a negative linear relation ship between the inbreeding depression for quantitative characters and amount of

inbreeding coefficient and Hallauer &Miranda (1995)showed the late generation of the yellow maize and result of inbreeding reach to high level from homozygosity and this lead to strains and clan depression because the harmful deadly and semi deadly gene effect to biological and growth strains and showed the best to get a characters in the first generation

In the yellow maize plant .

Miranda Filho(1999)is found in the high level of homozygosity result of dominance gene action lead to depression in quantitative characters value about many generation result inbreeding in the yellow maize Charlesworth &Charlesworth (2002)showed over dominance recessive epistasis and epistasis effect phenomenon a lead to more of homozygosity lead to a drop of vital viability for character but difficult to define who is causes depression of quantitative character a result of inbreeding

but the biological validity in the second generation effected with supernational effects it have the biggest role in the quantitative characters depression in the different grain yield.

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