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RESPONSE OF GROUNDNUT (*ARACHIS HYPOGAEA* L.) TO DIFFERENT DATES AND LEVELS OF NITROGEN FERTILIZER

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Abstract

A field experiment was conducted in the field of Field Crops Experiments - college of Agriculture - Wasit University during the summer season 2017 in a sandy soil, to study the response of the growth and yield characteristics of different levels of nitrogen fertilizers and their addition in field groundnut (*Arachis hypogaea* L.) The randomized complete block design was used to arrange splinters with four replicates. The dates for the addition of compost included the main plots and included three additional dates: addition at the beginning of the vegetative growth phase, and the addition at the beginning Flowering stage and addition when complete the flowering While nitrogen fertilizer levels were (0, 100, 200 and 300 kg N /h) secondary plots. The results showed the following exceeds 100 kg N / h in some growth characteristics. The average height plant of 30.5 cm, the number of pods of 11.3 branches plant^{-1} and dry weight 94.6 g / plant was significantly higher than the 100 kg /h The highest rate of seeds and seed weight was found in 100 seeds, with 49.2 pods / seeds plant^{-1}, 65.1 seeds plant^{-1} and 70.9 g / plant respectively, and the highest rate of pod and seeds (3727 and 2168 kg / h) increased by (38.19% and 69.11%) respectively compared to the comparison treatment. The levels of 200 and 300 kg N /h were the highest for plant height and dry weight for vegetative group with 34.8, 36.0 cm, 110.4 and 114.5 g / plant, respectively. The number of pods and seeds and the weight of 100 seeds (46.4 pods / plants, 63.5 seeds / plants and 66.6 g, respectively) and corneal yield were significantly higher in the plant height (32.46 cm), dry weight (104.3 g / plant) And seeds (3624 and 2003 kg / h, respectively) with an increase of 19.48% and 24.79% compared to the date of addition in the vegetative growth stage, which recorded the lowest rate of 3033 and 1605 kg / h. The effect of the interaction between the levels of nitrogen and the dates of the addition significantly in the pods and seed weight, with the level of 100 kg N / e when added at the beginning of flowering in the pods (4230 kg / e) and seed yield (2513 kg / e) an increase of 60.34% and 94.50%, respectively with comparative treatment.

Introduction

The field groundnut (*Arachis hypogaea* L). is an oil crop belonging to the fabaceae family The 2004 crop yield of 35 million tons was estimated at 20 million hectares, In the Arab world it occupies the second place after the opium in terms of importance and Sudan tops the Arab countries in terms of the area cultivated with this crop ten thousand Until 1998, the percentage of oil in its seeds is between 35-50%, while the percentage of protein ranges from 25-30% (Al-Maliki, 2003). Groundnut oil is used in the food industry, such as groundnut butter and confectionery, and it is characterized by oils with a high content of essential fatty acids such as Oleic and Linoleic (Abdel–Wahab *et al.,* 1986). This crop is also grown as an alveolar crop such as, Nitrogen is necessary for plant growth and needs large quantities and has an effect on increasing the production of various crops, especially leguminous crops, as it enters the building of a number of amino acids, proteins and nucleic acids. The low of nitrogen in the soil leads to the yellowing of the leaves and stops the growth of the plant and the lack of protein. Therefore (Ali *et al.,* 2003) indicated a significant increase in the height of groundnut when adding 60 kg N. H-1 compared to the comparison treatment. The addition of nitrogen fertilizer increased the number of pods of field groundnut and thus increased the number of pods to be obtained by increasing the plant yield (Bala Hmb, *et al.,* 2011). The (Abdzad Gohari and Amiri, 2010) confirmed a significant increase in the dry weight of the field pea nut cultivars when nitrogen fertilization. Hossain M, A *et al*., (2007) showed a significant increase in dry weight and the addition of nitrogen fertilizer to field

groundnut during agriculture and during the vegetative growth stage until flowering. As for the date of addition of nitrogen fertilizer, (Ali, *et al.*, 2003) noted that the addition of nitrogen fertilizer during the vegetative growth of field groundnut led to an increase in the number of pods. Kabadagi CB and Setty RA. (2010) found an increase in the number of pods when adding nitrogen manure at seed planting and two weeks after germination, giving the highest rate of 36.5 pints. Abd-El-Lateef, E.M., N.I. Ashour and A.A. Farrag, 1998 showed a significant increase in the number of seeds.1 - and the number of seeds. 1 - for the field pea nut crop when adding 80 kg N.1 - while the number of seeds was decreased at 140 and 160 kg. Abdzad Gohari and Amiri, 2010 observed a significant linear increase in the weight of 100 seeds by increasing the levels of nitrogen added from 0-100 kg NH-1. The weight of 100 seeds of field pea nut was increased by the addition of nitrogen fertilizer added to potassium (Gomaa and Abd-El Bary, 1995). In an experiment in which three levels of nitrogen fertilizer were used, it was 0 _60 _ 80 kg. E-1 There was a significant increase in corneal load when adding the level 60 kg N. H-1 to peanut field (Abdel–Wahab, *et al.,* 1986) also indicated that the levels of nitrogen added to the field groundnut cultivars resulted in a significant increase in seed yield. Due to the lack of research resources on the effect of the nitrogen element and its timing in the growth stages of the field pea nut crop and the role of the effect of the high levels of this element, this study was conducted in order to determine the most suitable amount of nitrogen and the best date for adding it.

Materials and Methods

This experiment was conducted in the fields of Field Crops Science Department, college of Agriculture, Wasit University, Agriculture 2017 was carried out in sand soil. Use the RCBD design to arrange the splitters with four replicates. The main plots included the dates of addition of nitrogen as follows

1. Add at the beginning of the vegetative growth stage.
2. added at the beginning of flowering
3. Add when the flowering at 100% flowering

The secondary plots included four levels of addition of nitrogen fertilizer, zero, 100, 200, 300 kg. h. The soil of the experiment was prepared as usual and the phosphate added before smoothing at 80 kg. h superphosphate P_2O_5 (Al-Maliki, 2003) and potassium sulphate fertilizer at the rate of 60 kg K_2O. The area of the experimental unit was 3x4 m, the distance between 0.75 m and 0.25 m, ten plants were randomly selected from the middle squares for the purpose of studying the growth characteristics,(Al maliki, 2003): height of the plant (cm), number of branches plant^{-1}, dry weight(kg), number of total pods plant^{-1}, Total number of seeds plant^{-1}, Number of seeds in pod^{-1}, weight of 100 seeds (g), the yield pods kg h^{-1} and Seed yield kg h^{-1}.

Desiccation and Results

Height plant (cm)

The results of table 1 indicate significant differences in the height of the plant and increase the plant height by increasing the levels of nitrogen from 0 to 300 kg.N h^{-1} There were no significant differences between 200 and 300 kg N h^{-1} levels it is gives 36.02 Cm. The reason for the plant's increase in nitrogen uptake may be due to the increase in the formation of amino acids necessary for growth, which led to a large increase in the paper area and then increase the size of the vegetative total of the plant. This is the reason for the increased shading, making OXIN less susceptible to the process of optical oxidation, on elongation of the plant (20). This is consistent with the findings of Abdel–Wahab, *et al.,* (1986) and (Singh *et al.,* 2004) who indicated that nitrogen fertilization led to increased plant height. As for the date of addition, the date of addition was increased at the beginning and when the flowering is completed on the date of addition at the beginning of the stage of vegetative growth. There was no significant difference between the beginning and the completion of flowering, giving a plant height of 32.4 and 32.5 cm, respectively. Compared to the treatment of the addition of manure nitrogen at the beginning of vegetative growth at 29.3 cm. The reason for plant height in the reproductive stages may be due to the fact that the plant has a large root mass as well as the vegetative group, allowing the absorption of the largest amount of nitrogen, which leads to increased amino acids, enzymes and hormones responsible for plant division and elongation (Fageria *et al.,* 1997) and (Kabadagi and Setty, 2010) As for the interaction between the levels of nitrogen and the dates of addition, there were no significant differences.

Number of branches plant^{-1}

It is noted from table 2 that there are significant differences between the levels of nitrogen, where the level of 100 kg N h^{-1} significantly on the treatments 0 and 300 kg N h^{-1} with the highest number of branches amounted to 11.3 branch plant^{-1} while gave Treatment 0 kg N h^{-1} Average 10.1 branch plant^{-1}.The reason for the superiority of the level of 100 kg N h^{-1} may be attributed to the increase in the appropriate growth rates table 1, which recorded the lowest rate of increase compared to other levels of fertilizer, which created a balance between the height of the plant and the number of branches. This

Table 1: Effect of Nitrogen Fertilizer Levels and Addition Dates and Interaction in Plant Height (cm).

Mean	Nitrogen levels (kg h^{-1})				Add dates
	N300	N200	N100	N0	
29.3	33.00	33.0	28.2	22.8	Added at the beginning of the vegetative growth phase
32.54	38.7	34.0	32.3	24.8	Added at the beginning of the flowering stage
32.5	36.80	36.6	33.0	23.7	Added when flowering is complete
	36.02	34.8	31.1	23.7	Mean
Level × date			Levels	Date	Lsd 0.05
N.S.			2.09	2.17	

Table 2: Effect of Nitrogen Fertilizer Levels and Addition Date and Interaction in Number of Branches.

Mean	Nitrogen levels (kg h^{-1})				Add dates
	N300	N200	N100	N0	
11.4	11.0	11.8	12.7	10.3	Added at the beginning of the vegetative growth phase
10.6	10.1	11.0	11.3	10.0	Added at the beginning of the flowering stage
10.17	10	10.3	10.2	10.2	Added when flowering is complete
	10.4	11.0	11.4	10.02	Mean
Level × date			Levels	Date	Lsd 0.05
N.S.			0.75	N.S.	

Table 3: Effect of nitrogen fertilizer levels and addition dates in dry weight gm $plant^{-1}$.

Mean	Nitrogen levels (kg h^{-1})				Add dates
	N300	N200	N100	N0	
85.4	91	93	87.4	70.4	Added at the beginning of the vegetative growth phase
104.2	122.4	127.3	104	62.2	Added at the beginning of the flowering stage
98.62	130.6	110.7	94.4	58.8	Added when flowering is complete
	114.5	110.4	94.6	63.8	Mean
Level × date			Levels	Date	Lsd 0.05
12.86			6.89	9.15	

Table 4: Effect of Nitrogen Fertilizer Levels and Addition r in Number pods.

Mean	Nitrogen levels (kg h^{-1})				Add dates
	N300	N200	N100	N0	
39.5	38.1	38.6	44.7	36.6	Added at the beginning of the vegetative growth phase
45.4	44.4	49.6	53.1	36.8	Added at the beginning of the flowering stage
41.8	41.3	41.9	47.2	37.1	Added when flowering is complete
	41.2	43.3	48.3	36.8	Mean
Level × date			Levels	Date	Lsd 0.05
4.66			2.97	1.72	

is consistent with (Gomaa *et al.,* 1995) and (Tiwari and Dhakar, 1997), which indicated an increase in the number of branches when adding nitrogen to the field groundnut. The reason for the decrease in the number of branches at the levels of 200 and 300 kg N h^{-1} may be attributed to the increase in plant height table 1 due to the concentration of pepper in the developing summit of the main plant, leading to a decrease in the number of branches and increase the height of the plant due to shading (Yakadri and Satyanarayana, 1992) and (Fageria *et al.,* 1997). As for the date of addition of nitrogen interaction, the effects were not significant.

Dry weight (gm. $Plant^{-1}$)

(Table 3) shows a significant increase between the dry weight of the plant and the effect of nitrogen levels, with all levels of nitrogen significantly exceeding the comparison treatment. The 300 kg N. h^{-1} was significantly higher than the dry weight of 114.5 gm. $plant^{-1}$ Compared with the comparison treatment that gave 63.8 gm. There were no significant differences between the 200 and 300 kg N h^{-1} levels, which exceeded the fertilizer 100 kg N h^{-1} level, which recorded an average of 94.6 gm. Increase the height of the plant and the number of branches and thus increase its vegetative growth leading to dry weight increase (Gomaa, *et al.,* 1995) and (Hossain *et al.,* 2007). As for the dates of the addition, the date of addition was higher at the beginning of the flowering by giving the highest rate of this capacity was 104.2 gm. $Plant^{-1}$ and there was no significant difference between it and the date of addition at the completion of flowering, which recorded a low rate of 98.6 g. Compared with the date of addition at the beginning of the vegetative growth stage, which recorded the lowest rate of dry plant weight of 85.4 gm. The increase in dry weight may be due to the addition of nitrogen because it

Table 5: Effect of nitrogen fertilizer levels and addition date and interaction in seed number plant^{-1}.

Mean	Nitrogen levels (kg h^{-1})				Add dates
	N300	N200	N100	N0	
56.4	56.4	56.4	59.7	53.2	Added at the beginning of the vegetative growth phase
63.5	65.5	68.1	69.1	51.3	Added at the beginning of the flowering stage
61.6	63.9	64.7	66.6	51.5	Added when flowering is complete
	61.9	63.0	65.1	52.0	Mean
Level × date			Levels	Date	Lsd 0.05
5.74			2.55	4.88	

Table 6: Effect of Nitrogen Fertilizer Levels and Addition Date in Seed pod^{-1}.

Mean	Nitrogen levels (kg h^{-1})				Add dates
	N300	N200	N100	N0	
1.43	1.52	1.46	1.31	1.43	Added at the beginning of the vegetative growth phase
1.36	1.45	1.34	1.23	1.43	Added at the beginning of the flowering stage
1.46	1.55	1.55	1.41	1.34	Added when flowering is complete
	1.51	1.45	1.31	1.4	Mean
Level × date			Levels	Date	Lsd 0.05
N.S.			0.05	N.S.	

Table 7: Effect of Nitrogen Fertilizer Levels and Addition Date weight 100 Seeds.

Mean	Nitrogen levels (kg h^{-1})				Add dates
	N300	N200	N100	N0	
60.3	57.8	61.3	68.9	53.0	Added at the beginning of the vegetative growth phase
66.6	66.8	72.8	75.0	51.9	Added at the beginning of the flowering stage
63.1	65.6	66.3	68.8	52.0	Added when flowering is complete
	63.4	66.8	70.9	52.3	Mean
Level × date			Levels	Date	Lsd 0.05
5.05			3.25	1.74	

Table 8: Effect of Nitrogen Fertilizer Levels and Addition in yield podes.

Mean	Nitrogen levels (kg h^{-1})				Add dates
	N300	N200	N100	N0	
3033	2842	3072	3467	2753	Added at the beginning of the vegetative growth phase
3624	3520	4108	4230	2638	Added at the beginning of the flowering stage
3126	3029	3290	3483	2700	Added when flowering is complete
	3130	3490	3727	2697	Mean
Level × date			Levels	Date	Lsd 0.05
521.7			233.0	442.7	

increased the division and elongation of the plant, which leads to the increase of the vegetative population and then the increase in dry weight (Mishra and Vyas 1992) and (Yakadri and Satyamarayana, 1995). As for the interaction between the study workers, the plant's response to the levels of nitrogen added at different stages The highest dry weight of the plant at the level of fertilize 300 kg N. h^{-1} highest dry weight rate 130 gm.

Number of pods plant^{-1}

(Table 4) shows significant differences between levels of nitrogen, with a higher than 100 kg N h^{-1} with the highest rate of 48.2 pods Plant^{-1} compared to other levels and the lowest ratio of 36.8 pods. Note that there were no differences between the number of pods for the 200 and 300 kg N h^{-1} levels, which recorded an average of 42.7 and 41.2 pods, respectively, which were superior to the comparison treatment. The increase was due to the effect of nitrogen on the growth of flower branches. Thus increasing the number of tasks that led to an increase in the number of pods. This is consistent with the results of (Ravisankar *et al.,* 2010) and (Yakadri and Satyamarayana, 1995) who indicated that the addition of nitrogen fertilizer leads to a significant increase in the number of pods. The reason for the decline in the number of pods by increasing the levels of nitrogen may be determined to increase the content of plant tissues of nitrogen, which leads to a negative effect on the proportion of fertilization in the ovaries, the number of pods at these levels (Singh *et al.,* 2004). As for the dates of addition of nitrogen fertilizer, there is a significant difference between the number of pods in the plant by the effect of the date of addition, where the second date at the beginning of the flowering significantly recorded the highest rate of 45.4 pods Plant^{-1} compared with the addition of the addition at the beginning of the stage of vegetative growth and completion of flowering as well when the flowering

Table 9: Effect of Nitrogen Fertilizer Levels and Addition yield seeds.

Mean	Nitrogen levels (kg h^{-1})				Add dates
	N300	N200	N100	N0	
1605	1609	1693	1823	1297	Added at the beginning of the vegetative growth phase
2003	1837	2372	2513	1292	Added at the beginning of the flowering stage
1754	1702	1892	2167	1256	Added when flowering is complete
	1716	1985	2168	1282	Mean
Level × date			Levels	Date	Lsd 0.05
255.1			156.9	124.0	

process was completed, the average number of carnations reached 41.8 pg. Compared with the addition date at the beginning of vegetative growth (39.5) pg. The significant increase in the second and third dates may be due to the date of addition at the beginning of the vegetative growth phase. The addition of nitrogen at the beginning of flowering led to a decrease in flowering and the number of pods increased (Kabadagi and Setty, 2010) and (Safarzadeh, 1999). As for the interaction between levels of nitrogen fertilizer and the dates of addition, it was found that the addition of 100 kg N h^{-1} at the date of addition at the beginning of the flowering stage more than the last two phases

Number of seeds Plant^{-1}

The results of table 5 showed that there were significant differences between levels of nitrogen fertilizer, with all levels exceeding the comparison treatment. Also exceeded 100 kg N h^{-1} at the other levels with the highest rate reaching 65.1 followed by 200 and 300 kg N h^{-1} with 63.0 and 61.9 seeds respectively. (Kabadagi and Setty, 2010) and (Yakadri and Satyamarayana, 1995). The increase in the number of seeds when treated with the 100 kg N h^{-1} may be due to an increase in the number of pods (Table 4). The highest rate of the number of pods was 49.2 pods Plant^{-1}. As for the dates of addition of fertilizer, there are significant differences where the treatment of the addition at the beginning of flowering and the completion of flowering compared to the date of addition at the beginning of the vegetative growth rate reached 63.5 and 61.6 Seed plant^{-1} respectively while the added treatment at the beginning of the vegetative growth rate was the lowest rate of 56.4 Seed plant^{-1}. The increase in the number of seeds in the treatments of the addition of fertilizer at the beginning of the flowering may be due to the fact that the added nitrogen in this period led to a decrease in flowering and thus increase the fertilization rate in the ovaries and then increase the number of pods that led to increasing the number of seeds or that the addition of fertilizer coincided with the date of composition The resulting corns increase the number of seeds (Ravisankar *et al.,* 2010)and (Mishra and Vyas, 1992). As for the interaction, there are significant differences, as the dates of the addition of fertilizer significantly increased the number of seeds for all levels, with the level of 100 kg N h^{-1} at the beginning of flowering, the highest rate of seed number reached 69.1 seeds^{-1} - Notes of interference rates that the treatment of the addition of compost when the completion of flowering affected the increase in the number of seeds of all levels compared to the treatment of the addition of manure at the beginning of vegetative growth, which recorded the lowest rates of overlap.

Average number of seeds pod^{-1}

The results of table 6 indicate that there are significant differences between the number of seeds in pod with the effect of nitrogen fertilizer levels, with the levels of 200 and 300 kg N h^{-1} exceeding 100 kg N.1, which recorded the lowest rate of 1.31 seeds, 1 and the levels of 200 and 300 kg N.h^{-1} recorded the highest rate of 1.45 and 1.51 seeds. There was no significant difference between the 100 kg N^{-1} and the comparison treatment, and the increase in the levels of 200 and 300 kg NH1 may be due to a decrease in the total number of pod -1 plants at these levels, which were 43.3 and 40 9. Pods. Plants^{-1}, which means that the products of the process of photosynthesis distributed to a smaller number of flowering turbines increased fertilization rate in the ovaries increased the number of seeds in pod (Mishra and Vyas, 1992) and (Hossain and Nasreen, 2007). As for the dates of addition and overlap between the nitrogen fertilizer levels and the dates of addition, is no significant differences.

Weight of 100 seeds (gm)

The results of table 7 indicate that there are significant differences between the levels of nitrogen fertilizer, and all levels have exceeded the comparison treatment, as the level of 100 kg N.1H-1 significantly compared with all levels with the highest weight of 100 seeds 70.9 g. The levels are followed by 200 and 300 kg N-H-1, respectively. The comparison treatment recorded the lowest weight of 100 seeds of 52.3 g. The increase in the number of seeds in pod, with a total of 1.31 seeds, may be attributed to the increase in the number of seeds in pod. (Table 7) has increased the accumulation of dry matter in the seeds and increased the seed components on which the weight of the seed is increased. As for the dates of the addition, it also affected significantly as it is noted from table 7 that the date of adding fertilizer at the

beginning of the flowering recorded the highest rate of weight for 100 seeds 66.6 g followed by the date of addition at the completion of flowering as it achieved 63.1 g while recording the date of addition at the beginning The vegetative growth phase was the lowest of 100 seeds at 60.3 g. The reason for the significant increase in the weight of 100 seeds at the addition of manure at the beginning of flowering may be due to the fact that the response of the plant to the addition of nitrogen fertilizer at this stage is more than the rest of the stages (Fageria, and Jones, 1997) and (Kabadagi and Setty, 2010). As for the interaction between the nitrogen levels and the dates of addition, And the highest rate of 100 seed weight of 100 and 200 kg N h^{-1} at the time of addition at the beginning of the flowering stage with a rate of 75.0 and 72.8 g respectively, while the weight of 100 seeds decreased at the level of i 300 kg N $^{1}h^{-1}$ for all fertilizer add dates.

Pods yield kg h^{-1}

The results showed in table 8 that there were significant differences between the levels of nitrogen, with the highest level of fertilize 100 kg N h^{-1} highest pods rate reached 3727 $kg.h^{-1}$ and the highest morale at all levels of morale at all levels and an increase of 38.19 % Compared to the comparison transaction. And the levels of 200 and 300 kg kg NH^{1}had a record of 3490 and 3130 kg. H^{1}. The reason for the increase in the pods was due to the increase in the total number of kernels 4), which resulted in an increase in the number of plants in the unit area, because of the relationship of positive correlation between the number of pods and increase the weight of pods (Kabadagi and Setty, 2010) and (Hossain *et al.,* 2007). As for the dates of addition, the date of addition was recorded at the beginning of the flowering, the highest rate of the pod was 3624 kg. While the lowest was the weight of horns in the stage of vegetative growth (3033 kg E^{-1}). It may be attributed to the reason for the superiority of the date of addition at the beginning of the flowering compared to the other addendum to add that the addition of nitrogen fertilizer at this stage led to the fall of flowers because of increased fertilization in the ovaries increased the number of pods in the plant at this date table 8 Area. **A**s for the interaction was significant, where it is generally observed that all dates have affected the increase of the pod of all levels relative to the value of the treatment of the comparison as distinguished by the date of addition at the beginning of the flowering in the increase of the pod of all levels and record level 100 kg N h^{1}. Was 4230 kg.e-1 compared to the comparison treatment of the date. This may be due to the lack of flowering and, when completed, due to the increased fertilization rate in the ovaries, the number of pods increases as well. The addition of compost at these stages coincides with the timing of the transition of food and its accumulation in the total pods of the plant increases the yield of plants at the addition of fertilizer in this period.

Seed yield kg h^{-1}

The results of table 9 indicate that there are significant differences between levels of nitrogen fertilizer in the effect on the seed yield, with a higher than 100 kg N^{1}, compared with the comparison treatment with the highest seed yield of 2168 kg. At the 200 and 300 kg levels, N h^{-1} recorded a seed yield of 1985 and 1716 $kg.h^{-1}$, compared to the comparison coefficient of 1282 kg. The increase in seed yield at the level of fertilize 100 kg N 1 h^{-1} significantly on the rest of the levels is due to the large increase in the number of pods table 4, which led to an increase in the number of seeds table 5 This is consistent with the (Ali and Mowafy, 2003) and (Barik *et al.,* 1998). As for the dates of addition, they also recorded significant differences. (Table 9) shows that the number of seeds increased by 2003 kg per year compared with the date of addition at the beginning of the vegetative growth, which recorded the lowest rate of 1605 kg This increase by recording the highest rate of seed yield is due to the increase in seed yield components, which is the number of seeds and the weight of 100 seeds (Table 5, 7), respectively. Which increased with the addition of nitrogen, which led to an increase in the seed yield, and this is consistent with the results of Jumaili (24), which indicated that the addition of nitrogen fertilizer in the reproductive stages lead to increase the components of seed yield and thus increase the value (Barik and Mendal, 1998). As for the interaction between levels of nitrogen fertilizer and dates of addition, it is noted from table 9 that all dates of addition have affected the increase of seed yield for all levels, but the significant effect was the date of addition at the beginning of flowering, with the levels of 100 and 200 kg. For the seed yield was 2513 and 2372 $kg.h^{-1}$ compared to the comparison treatment and note that the date of addition at the completion of flowering has affected the increase of the seed yield to the level of 100 kg 100 kg N.1 The increase in the seed yield to the level of 100 kg. The effect of the additive at the beginning and when the flowering is due to increase the components of the result represented D. The seeds with indicated peanut correlation between the number of seeds and their yield. (Barik, *et al.,* 1998)

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