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## Production of baby corn influenced by Nitrogen application and crop geometry: A review

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### Abstract

Baby corn is a short-term crop, with an unfertilized maize ear which is harvested within 2-3 days of silk emergence of the plant. It is a newly introduced crop in India and being a high-value and short-span crop (50-60 days) it has a good perspective in improving the financial status of the farmers. Advancement and standardization of agronomic practices are required before familiarizing the crop among farmers. Among different agro-techniques, crop geometry and Nitrogen application are considered as one of the most important factors to the production yield of crop. Nitrogen deficiency is a broad phenomenon its proper management is mandatory from a financial and environmental view. It is concluded in studies that the yield of crop increase with an increase in N rates but the optimum dose is dependent upon plant density. However response of the N application was different for quality and yield attributes. Plant density is another major aspect of the performance of baby corn. It is reported that quality attributes were much better in wider spacing due to a decrease in plant density. It is also reported that narrow spacing and increase in N application concurrently increase the yield attributes. More research studies are needed on the combined approach (Plant geometry and N application) in the baby corn can intensify yield and quality in baby corn. Optimization of both attributes is depended on location and season. However, economically effective and user's friendly precision tools may be a feasible option for getting the real farm situation.

**Keywords:** Baby corn, Nitrogen management, crop geometry

### Introduction

Maize (*Zea mays* L.) is widely grown in subtropical, tropical, and temperate regions and ranked as 3<sup>rd</sup> most important cereal crop in the world. Maize is grown in India over an area of 9.47 million hectares with a production per hectare of 28.72 metric tonne and yield of 3032 kg/ha, respectively (Dir. of Economics & Statistics, DAC&FW, 2018) [9]. Classification of Maize varieties is done according to their use and presence of starch content *viz.* Baby corn, Flint corn, Waxy corn, Pod corn, Sweet corn, Flour corn, Popcorn, and Dent corn.

Baby corn is dehusked baby cob harvested before fertilization after the emergence of silk 2-3 cm in length (Singh MK *et al.*, 2009) [42]. It is an emerging crop across the world also known as the High-value crop in the market due to its high nutrition level especially high protein value, sweet taste, fodder yield, and market demand. Crop duration varies with season i.e. 60-70 days (rainy), 120-140 days (winters), and 75-90 days (spring). Furthermore, the dream of doubling the income of farmers can be obtained by the cultivation of baby corn, unlike normal grain maize. It is a vegetable with low calories and high fiber content. This crop is highly promising because of its short duration, high yield, fast growth, and economic profit, which fits well in cropping systems. Besides its nutritional benefits, it's also free from the residual effect of pesticides as it is wrapped in the husk that protects it from insects and pests. As people are more concerned about health nowadays, it is the quality of food in place of bulky items.

Nitrogen is the essential constituent of chlorophyll, protoplasm, and enzymes. It governs the utilization of phosphorus. Its function includes the important component of amino acids which works as the building blocks for proteins, DNA and RNA. Nitrogen plays a major role in plant growth, photosynthesis, physiological and biochemical reactions in plants. Baby corn take Nitrogen from the soil in the ammonium (NH<sub>4</sub><sup>+</sup>) and nitrate (NO<sub>3</sub><sup>-</sup>) form. Nitrogenous fertilizers are continuously applied by Indian farmers in more quantity to obtain more yields and Nitrogenous fertilizers are costly, therefore their indiscriminate use points agronomists to re-think its effective and efficient utilization.

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The deficiency of N cause the yellowing of leaves, reduction in the yield and hinders the growth, farmer apply N fertilizer based on the greenness of leaf color. Excessive N application results in excessive vegetative growth, attracts more insects or disease/pathogens, reduces the stem strength, and leads to a decrease in Nitrogen use efficiency (NUE). Deficiency of Nitrogen is the key factor in reducing the economic yield of baby corn. Excessive application is also a major problem. Efficient use will minimize the cost, nitrate leaching to groundwater, and improves the NUE. Proper synchronization between demand and Nitrogen provides considering temporal variations in soil decides the extent of accomplishable profit, yield, and environmental friendly (Shanahan JF *et al.*, 2008)<sup>[39]</sup>. To exploit higher productivity, plant geometry, plant density, fertilizer application mainly N supply is important. Increment of crop yield depends upon yield building factors *viz.* site-specific plant density and plant nutrition.

Efficient utilization of the resources *viz.* light by the crop canopy, nutrients required by a plant, moisture level in soil, etc. depends upon the space utilized by the individual plants. Optimum plant population along with adequate fertilizer amount is the key factor to acquire the full potential of the plant. Though the spacing requirement has been standardized for the fodder and grains are well known and defined, but such information is limited in baby corn. Less than plant population results in a decline in productivity due to the non-utilization of the resources by crop, while excessive plant population leads to an increase in the inter-plant competition for basic resources. Density distracts the canopy structure, yield, and growth in corn (Lee-Joung *et al.*, 2005)<sup>[23]</sup>. Soil available to a particular plant is the most important factor which reduces the utilization of resources present in soil and also the harvest of soil radiation, both together, in turn, decides the yield of baby corn (N. Thavaprakash *et al.*, 2008)<sup>[27]</sup>. Adequate spacing will lead to an increment of crop yield.

Being a new crop thus limited work is done under Indian conditions (Kumar R *et al.*, 2017)<sup>[19]</sup>. Information on crop geometry to explore the available resources for high economic benefit and Nitrogen application on baby corn fodder and cob yield is consolidating. Hence, more study is called for.

### Effect of Nitrogen application

The time and rate of the Nitrogen application shows varied effects on the quality, yield, and yield attributes of baby corn. It shows the effect on the health status of soil, and economics of crop. Being a major structural nutrient it plays a vital role in the growth of plants. The effect of N to the crop growth and development has been briefly described in this section.

### Growth characters of baby corn

A field experiment was conducted to measure the effect of N levels on the growth of baby corn and resulted in considerably taller plant in height, more dry matter and leaf dry matter and LAI recorded as when 120 kg N ha<sup>-1</sup> was applied over 80 kg N ha<sup>-1</sup> at Bhubaneswar (Bindhani *et al.*, 2005). (Thakur *et al.*, 1997)<sup>[46]</sup> carried a study in the fields of Bajaura (Himachal Pradesh) to find the results of N levels impact on baby corn. Later he finds that when the application of 150-200 kg N ha<sup>-1</sup> was given to the field end up resulting in considerably higher plant height, more additional leaves, and dry matter component over the plants which are grown with N application dose below 100 kg N ha<sup>-1</sup>. (Keskin *et al.*, 2005)<sup>[17]</sup> experimenting on maize as the purpose of forage resulted that when nitrogen dose is increased up to 200 kg ha<sup>-1</sup> resulted as more plant height and dry matter. (Ayub *et al.*, 2003)<sup>[2]</sup> noted

that the application dose of 120 kg N ha<sup>-1</sup> results in higher plant length, and more leaves plant<sup>-1</sup> and thicker diameter over the application of N under control and 80 kg N ha<sup>-1</sup>. In Turkey, (Adiloglu and Saglam 2005)<sup>[1]</sup> experimented on maize and resulted that with an increase in the levels of N up to 100 kg N ha<sup>-1</sup> showed a considerable effect on the dry matter content and yield of the baby corn. (Choudhary *et al.*, 2006)<sup>[5]</sup> researched that increase of leaf area and dry matter production increase of leaf area and dry matter production resulted as the application of 120 kg N ha<sup>-1</sup> is provided maize an over a dose of 40 and 80 kg N ha<sup>-1</sup> in Pune. (Hani *et al.*, 2006)<sup>[12]</sup> While working on maize resulted that more height of the plant, an increase in the stem width, and total dry matter content was increased with the application dose of 80 kg N ha<sup>-1</sup> over the application dose of N under control conditions. They also resulted that more Leaf Area Index has also showed better results with the application dose of 80 kg N ha<sup>-1</sup> gave over the application of N under control and 40 kg N ha<sup>-1</sup>. (Kumar 2009)<sup>[18]</sup> in New Delhi, while studying the response of maize variety to different levels dose of N application and lastly resulted that with increase in N levels more increased dry weight and height were recorded. (Mehta *et al.*, 2011)<sup>[25]</sup> resulted that an increase in the dry matter production, RGR, height, LAI, and CGR was recorded with the application dose of N up to 275 kg N ha<sup>-1</sup> over with a control application and other applications dose of N used in the experiment as resulted in Ludhiana. (Jeet *et al.*, 2012)<sup>[13]</sup>. Resulted that an increase in application dose of N up to 150 kg ha<sup>-1</sup> significantly increased height, Girth diameter, green leaf number, dry matter production, CGR, and LAI as experimented in Varanasi.

(Verma *et al.*, 2012)<sup>[50]</sup> while experimenting the effect of maize on different levels of N levels and concluded that plant height, dry matter, LAI, were increased significantly with an increase in the N levels up to 150 kg N ha<sup>-1</sup> as experiment was concluded on (0, 50, 100 and 150 kg N ha<sup>-1</sup>) levels of N at Hamirpur (U.P). (Raskar *et al.*, 2012)<sup>[32]</sup>. While studying on maize resulted that increase in the application dose of N significantly increases the plant height with the application of 160 kg ha<sup>-1</sup>. (Jena *et al.*, 2015)<sup>[14, 15]</sup> while studying on QPM in Rajendranagar, Hyderabad, resulted that high plant height and high leaf area index with the application of 240 kg N ha<sup>-1</sup> over the application of 0, 120, and 180 kg N ha<sup>-1</sup>. (Thakur and Sharma 1999)<sup>[45]</sup>. Concluded that with an increase in application dose of N up to 200 kg ha<sup>-1</sup> increase the plant height of baby corn. Same results were observed regarding the Plant height increased by the increase of N application levels (Thakur, Prakash, & Kharwara, 1997)<sup>[46]</sup>. (Sunder Singh 2001)<sup>[41]</sup> Resulted that with an increasing N level shows an increase in the dry matter production and yield in baby corn. The CGR was increased considerably by an increase in different levels of N application dose. (Bindhani *et al.*, 2007)<sup>[4]</sup> Resulted in higher tall plants with more dry matter yield and LAI, with an application dose of 120 kg N ha<sup>-1</sup> than other low levels of N application. (Eltelib *et al.* 2006)<sup>[10]</sup> also resulted in baby corn significant due to N application there is an increase in plant height, LAI, stem diameter, and leaves per plant are also increased.

(Thavaprakash and Velayudham 2009)<sup>[48]</sup> Resulted with an increase in the level of N application dose a considerable increase is noticed in growth and yield of baby corn height, LAI, and dry matter content. (Sahoo and Panda 1999)<sup>[36]</sup> resulted that increase yield and yield contributing characters with an increase in the level of N application dose up to 120 kg ha<sup>-1</sup> baby corn.

**Yield attributes and yields of baby corn**

(Pandey *et al.*, 2000)<sup>[29]</sup> while working on maize resulted that significantly higher number of baby cob and yield with the application of increasing levels of N application dose up to 120 kg N ha<sup>-1</sup> over the application of 60 and 90 kg N ha<sup>-1</sup> experiment was conducted on baby, corn hybrid “VL Makka-42” at Almora (Uttarakhand). (Kunjir *et al.*, 2009)<sup>[22]</sup> working on Popcorn maize noticed that with increasing levels of N application dose up to 225 kg N ha<sup>-1</sup> results in increase length and diameter of cob, green cob, and green biomass yield. (Mehta *et al.*, 2011)<sup>[25]</sup> resulted increase in length of plant, cob diameter, and yield were increased considerably with increasing levels of N up to 275 kg N, this study was conducted on hybrid maize in Ludhiana(Punjab). (Thakur and Sharma 1999)<sup>[45]</sup> while working on baby corn resulted that a higher yield with tall cob length and more cobs with an increase in the level of N application dose up to 150 kg N ha<sup>-1</sup>, as study was conducted at Bajaura (Himachal Pradesh). However, it also was resulted that barrenness (%), and the husk ratio of baby corn decreased with the application of an increasing rate from 100-200 kg N ha<sup>-1</sup> simultaneously. Further, they concluded the application of N progressively increased the baby corn yield from 100-200 kg N ha<sup>-1</sup>. (Pradeep *et al.* 2013) resulted that maize with application of 160 kg N/ha<sup>-1</sup> registered considerably high yield and yield attributes i.e. grains/cob, grain weight/ten cobs, cob length, 1000 grain weight, cob girth, weight of ten cobs, increased with 120 N kg/ha<sup>-1</sup> application dose over with 40 kg N/ha<sup>-1</sup> application. (Raja 2001)<sup>[33]</sup> in sweet corn resulted in an increase in the ear number per plant, cob girth, cob length, and weight per kernel with an increase in N application levels from 0 to 120 kg N ha<sup>-1</sup>. (Sahoo and Mahapatra 2004)<sup>[35]</sup> resulted with an application dose of 120 kg Nitrogen showed varied results with an increase in the weight of yield of cob, whole green cob, and the number of cobs per plant. He also concluded that the fresh weight per ear was maximum at 120 kg N than the 80 kg N. (Dar *et al.* 2014)<sup>[6,7]</sup> resulted that with an increase in the level of N application up to 180 kg N/ha<sup>-1</sup> growth improved yield and yield attributes have resulted. Green fodder yield (32.3t/ha<sup>-1</sup>) was also increased with an increase in the N application dose. (Bindhani *et al.* 2007)<sup>[4]</sup> resulted that considerably with the application of 120 kg N/ha<sup>-1</sup> showed an increase in the yield of the baby corn Yield. However, their fresh weight, length, and girth were also recorded higher in 120 kg N/ha<sup>-1</sup>. (Sunder Singh 2001)<sup>[41]</sup> in Kharif and summer seasons worked in baby corn and resulted that, increasing in N levels resulted considerably increase in dry matter production up to 150 kg N/ha<sup>-1</sup> but it was comparable with 180 kg N/ha<sup>-1</sup>. The crop growth rate was influenced significantly by different levels of N-fertilizer at all growth stages in all treatments. (Maurya *et al.*, 2005)<sup>[24]</sup> concluded that an increase in the number of grains in cob,

number of cobs, length of cobs, and 1000 grain weight has increased to the application dose of 150 kg N/ha<sup>-1</sup>. (Bakht *et al.*, 2006)<sup>[3]</sup> recorded significant increase in cobs plant<sup>-1</sup>, grains cob<sup>-1</sup>, and yield of maize that with increase in level of N application dose up to 200 kg N/ha<sup>-1</sup>. (Ram *et al.*, 2006)<sup>[31]</sup> resulted increase in cob length, girth diameter, and grain weight of maize with an increase in levels of N application dose up to 180 kg N ha<sup>-1</sup>. (Munda 2006)<sup>[30]</sup> resulted in baby corn that with an increase in level of N application dose up to 80 kg N/ha<sup>-1</sup> results considerably increase in yield of baby corn and green fodder. (Kunjir *et al.*, 2009)<sup>[22]</sup> resulted increase in length and girth of cob, green cob, and yield of Green biomass with an increase in the levels of N application dose up to 225 kg N ha<sup>-1</sup>. (Jena *et al.*, 2015)<sup>[14, 15]</sup> QPM resulted with an increase in level of N application dose up to 240 kg ha<sup>-1</sup> significantly increase in Stover yield, grain yield, and dry matter (Singh *et al.*, 2016)<sup>[43]</sup> resulted that with the application of FYM 5t/ha and adding 100 kg N/ha<sup>-1</sup> showed a considerable results with increase in baby corn length, girth, green cob weight, cob weight, number of cobs plant<sup>-1</sup> and green fodder yield.

**Recent approaches**

Several new techniques are used to determine the N management, which are based on analysis of soil and study of crop N status. These methods are either fixed previously or on-spot corrective, as shown in Table (a) fixed recommendations demands adjustment.

A new approach of site-specific nutrient management (SSNM) gives a precise management of the input of N in crop. This approach provides an opportunity to vary the rate of N application. This management improves NUE, reduce the economic cost of fertilizer, reduce environmental impact and improve profitability. (S. P. Singh. *et al.* 2019)<sup>[37]</sup>. Leaf color chart is a reliable parameter used for judging the sustainability and indicating the proper fertility level of leaf. (Kumar *et al.*, 2009)<sup>[18]</sup> Compared blanket N application (150 kg/ha in 3 splits) with 50% N as basal (75 kg/ha) and rest by top dressing based on the result of Soil Plant Analysis Development (SPAD) meter value ≤ 45(each time N @ 20 kg/ha) in summer baby corn. The yield obtained with SPAD-based N management saved 22 kg N/ha that resulted in economic gain and an increase in the factor productivity. Dose of N application timely and methods are most important. Foliar fertilization is also used to provide a small quantity of N if utilized properly. Site-specific nutrient management (SSNM) may happen with temporary variation in soil N status, but with a high N-use efficiency. However, the Difficult and uneconomic techniques have very few opportunities to solve nowadays problems, there is a need for low cost and user-friendly N-management with a combination of crop geometry.

**Table 1:** (a) Nitrogen optimizing techniques

Possible methods	Types	Key characteristics
Soil testing for fertilizer recommendation	Based on the soil test, calibration should be done at a fixed interval	N applied in 3 dose splits according to the test and recommendation
Uniform/ blanket N application	Field trials should be done to fix the fixed-dose and the time of application	For large area-specific, field is overdose/under fertilized, yield and profit doesn't show response
Fertigation	Use a drip fertigation system with a mixing of water-soluble fertilizers	Reduce the water loss, increase NUE, reduce field operations
Chlorophyll meters	Measure the chlorophyll content by SPAD meter	Based on the results N application, it is a time-consuming method
LCC (leaf color chart)	Based on the intensity of the leaf color	Quick method, eco-friendly, low cost
Soil management	Collection of data on soil type, color, EC, pH, slope, etc.	Uneconomic, totally depended on statistic data
Foliar application	Urea or other water-soluble N fertilizer	Only used on a specific period of growth for correcting N deficiency

### Effect of Crop geometry

For higher production one of the major factors is optimum crop geometry, by efficient utilization of soil resources and also harvesting more and more solar radiation and in turn better photosynthesis. (Saif *et al.*, 2003) [38] states that the growth and yield parameters are directly influenced by planting patterns of baby corn. The response of crop geometry to baby corn is discussed in this section.

### Growth characters of baby corn

(Dar *et al.*, 2014) [6, 7] concluded that baby corn higher plant height and LAI was founded with (50 cm × 15 cm) planting geometry resulted in than all other planting geometry. However, (60 cm × 20 cm) planting geometry results in better plant height, girth diameter, and fresh weight of plant (Thavaprakash *et al.*, 2005) [49] revealed that baby corn raised at 60 cm x 19 cm planting geometry resulted in considerably plants with the highest height (182.9 cm & 155.5 cm), higher leaf area index LAI (3.41 & 2.70), and also more dry matter production (74.35 and 53.10 q ha<sup>-1</sup>). (Thakur *et al.*, 1997) [45] observed that baby corn planting with spacing (40 cm x 20 cm) resulted in more yield and yield attributes as compared to (40 cm x 10 cm) and (60 cm x 20 cm) planting geometry. (Thakur *et al.*, 2000) [44] reported that (40 cm x 40 cm) planting geometry provides better yield than other planting geometry used in the experiment. (Sahoo and Panda 1999) [36] experimented in both winter and summer season and resulted that length, weight, and girth of dehusked baby corn and number of baby corns per plant does not have considerable difference between the various planting geometries used in the geometry (60 cm x 20 cm), (40 cm x 25 cm), (60 cm x 16.5 cm), (60 cm x 13 cm), (40 cm x 30 cm) & (40 cm x 20 cm) (Zarapkar 2006) [51] experimented on baby corn and resulted that planting geometry of (45 cm x 20 cm) was significantly results higher yield and production than other planting geometries. However, (30 cm x 20 cm) results in higher biomass yield and green fodder yield than others. (Ramchandrapa *et al.*, 2004) [31] wider spacing of (45 cm x 30 cm) results in the baby corn higher yield than. It was also observed more number of baby corn ears, weight of cob, and girth diameter was recorded higher in (45 cm x 30 cm) planting geometry as experimented on baby corn at Bangalore. (Kunjir *et al.*, 2007) [21] experimented on sweet corn and resulted that stover yield, higher cob yield, and total biomass yield at a close planting spacing of (45 cm x 20 cm) than the other planting spacing. It was concluded that wider planting spacing of 75 cm x 20 cm gave significantly higher weight of grains cob<sup>-1</sup>, girth diameter, number of grain rows cob<sup>-1</sup>, length and weight of cob, and 1000 grains weight as compared to narrow planting spacing. (Sukanya *et al.*, 1999) [40] experimented that baby corn higher yield was recorded in a wider planting spacing of (45 cm x 30 cm). (Kar *et al.*, 2006) experimented with baby corn on four planting spacing's (60 cm x 30 cm), (60 cm x 20 cm), (45 cm x 30 cm), and (45 cm x 20 cm) and then resulted that a higher yield of sweet corn was obtained at planting geometry of (60 cm x 20 cm), it was observed that length of cob, a high number of lines/cob and 1000 grain weight was higher at planting geometry of (60 cm x 20 cm) than other geometries. (D. Dutta *et al.*, 2015) [8] experimented with a field trial in west Bengal and concluded that planting spacing of 45 cm x 20 cm along with the irrigation scheduling at IW/CPE 1.0 resulted as best in cob yield ha<sup>-1</sup>, water use efficiency(WUE), and economic return of baby corn. (Ganesh Singh *et al.*, 2014) [11] in Allahabad experimented on sandy soil and reported that the variety HM4 of baby corn sown at the planting spacing of 45 cm x 25 cm

with the recommended dose of nutrients resulted in higher yield, growth, and economic net returns.

### Yield attributes and yields of baby corn

(Thavaprakash *et al.*, 2005) [49] experimented on baby corn and concluded that wider planting geometries of (60 cm x 19 cm) resulted in more long length, weight, and diameter of cob. Whereas the narrow planting spacing of (45 cm x 25 cm). Results undesirable result than (60 cm x 19 cm) on the yield and yield attributes whereas. (Zarapkar 2006) [51]. Experiment on baby corn and resulted that planting geometry of (45 cm x 20 cm) results higher significant yield of baby corn than the other remaining spacing geometry (60 cm x 20 cm). However, (30 cm x 20 cm) results in higher fodder yield and total biomass than other planting spacing. (Kar *et al.*, 2006) [16] experimented in the field and resulted that (60 cm x 20 cm) planting geometry increases green cob yield, and green fodder yield of baby corn than other planting geometries (60 cm x 30 cm), (45 cm x 20 cm) and (45 cm x 30 cm) whereas, (45 cm x 20 cm) planting geometry resulted maximum cobs which higher as compared to other planting geometries (60 cm x 30 cm), (45 cm x 30 cm) and (60 cm x 20 cm). (60 cm x 30 cm) planting geometry resulted highest increase in length and girth of cob, as compared to other planting geometries (60 cm x 20 cm), (45 cm x 20 cm), and (45 cm x 30 cm). (Thakur *et al.*, 1995) [48] resulted that baby corn planted with geometry of (40 cm x 10 cm) showed highest N-uptake N-uptake also improves the crude protein% in the plant whereas, baby corn planted with geometry of (40 cm x 20 cm) resulted in higher N-uptake than other geometries. (Thakur *et al.*, 1995) [48] resulted that plant geometry (40 cm x 10 cm) uptake most N in plants whereas; planting geometry (40 cm x 20 cm) recorded higher N uptake than other planting geometries (60 cm x 10 cm) and (60 cm x 20 cm). (Neelam *et al.*, 2018) [28] resulted that increase in weight of baby corn, girth diameter, and length of cob was recorded with planting geometry of (45 cm x 25 cm) as compared to other planting geometry (45 cm x 20 cm), (40 cm x 20 cm) & (40 cm x 25 cm) as researched in Assam. (D. Dutta. *et al.*, 2015) [8] experimented and resulted that Baby corn crop was grown at a spacing of 60 cm x 15 cm resulted higher plants (166.94 cm), high leaf area index (LAI), highest dry matter (488.37 g m<sup>-2</sup>), and highest Crop growth rate (CGR) (9.89 g m<sup>-2</sup> day<sup>-1</sup>). Taller plants might be a result of less competition of light and resources under the planting spacing 60 cm x 15 cm.

### Conclusion

The spatial arrangement of plants leads to the efficient utilization of moisture, nutrients, light, and other resources. As the spacing is increased the growth of plants significantly increased, but the yield and its attributes lack. Hence, density plays an important role in optimum harvest yields.

Economic and optimum management of Nitrogen for baby corn may vary according to agro-ecological zones, climate and edaphic conditions with seasonality. As per the conclusion, if an increase in the number of splits for Nitrogen doses in the field may result in higher baby corn and fodder yields. But application of N more than the requirement of crop increases the economic cost of a farmer, hence a manage dose of N as per critical stages of the crop is a beneficial and high yield achieving the strategy.

Among the interaction, spacing and Nitrogen levels were found considerable in respect of baby corn growth, yield and its attributes, and green fodder yield.

A combined approach involving soil application of N at critical crop growth stages followed by adequate crop spacing should be tried in baby corn under diverse agro-climatic conditions.

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