

Assessing the Morphological and Phenological Attributes of Corn/Maize (*Zea mays* L.) Influenced by Spiritual Blessing Energy Treatment (SBET)

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ABSTRACT

As global agriculture seeks sustainable and non-traditional methods to enhance crop productivity, subtle energy interventions have emerged as a novel area of research. This study investigated the impact of Spiritual Blessing Energy Treatment (SBET) on the morphological and phenological characteristics of corn (*Zea mays* L.). The research utilized a randomized complete block design. The "Treated" group received SBET through a directed energy transmission, while the "Control" group remained in a standard environment without intervention. The key morphological parameters and phenological attributes were monitored. Stem diameter, number of leaves per plant, and leaf width were significantly ($p \leq 0.001$) increased by 39.08%, 39.28%, and 45.09%, respectively, compared to the control. Additionally, ear/cob diameter, number of kernels per row, and total kernels per plant were significantly ($p \leq 0.001$) increased by 48.09%, 75.70%, and 136.20%, respectively, compared to the control. The corn grain yield per hectare was rose by 152.60% in the treatment group compared to the control group. The study concludes that SBET has positive influence on both the physical structure and the developmental stages of corn. While the mechanism of "energy treatment" remains a subject of interdisciplinary debate, the observed enhancements in growth vigor and earlier maturation suggest that SBET could serve as a complementary, eco-friendly alternative treatment approach for improving agricultural crop yields. Further molecular and biochemical analyses are recommended to identify the underlying cellular changes.

Keywords: corn farming, spiritual blessing, prayer, morphology, phenology, yield

INTRODUCTION

Maize (*Zea mays* L.) is one of the most versatile emerging crops and it is known as queen of cereals. Maize stands as a cornerstone of global food and economic security, serving as a primary source of food, animal feed, and industrial raw materials [1, 2]. However, maize productivity is increasingly threatened by escalating abiotic stresses driven by climate change, including severe droughts, erratic rainfall, and thermal fluctuations [1]. These environmental stressors significantly impair morphological development and phenological progression, often leading to yield losses of up to 50% in tropical regions [3]. In this context, the scientific community is exploring innovative, sustainable strategies to enhance crop production, by implementing of various non-traditional biophysical treatments. The assessment of morphological and phenological attributes remains a fundamental approach for determining the adaptive capacity and productivity of maize cultivars. Standard morphological

markers such as plant height and leaf architecture which provide essential data on vegetative vigor and biomass accumulation [4]. Simultaneously, phenological monitoring identifies critical shifts in developmental stages, such as emergence, flowering, and grain filling, which are highly susceptible to environmental disruptions [3, 5]. While conventional breeding and biotechnological interventions

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have significantly improved maize resilience, there is a growing interest in "subtle energy" or "biofield" treatments as potential catalysts for plant growth. These non-traditional approaches, often categorized under complementary and alternative methodologies, suggest that external energy applications can influence the physiological and molecular signaling processes of living organisms [6].

Spiritual Blessing Energy Treatment (SBET) is a form of biofield energy therapy that involves the transmission of "vital energy" or "universal life force" to biological systems. Recent pilot studies have begun to subject these phenomena to scientific scrutiny. For instance, biofield energy treatments have been reported to significantly enhance the nutritional quality and morphological parameters of livestock and poultry, improving egg weight and albumen height in laying hens [7]. Despite the preliminary evidence suggesting that biofield energy can influence biological systems, there is a distinct lack of high-impact research specifically assessing the impact of SBET on the morphological and phenological progression of *Zea mays* L. Given that maize's nutrient balance is frequently diverted toward survival mechanisms during stress, evaluating whether SBET can act as a "catalyst" for growth and developmental stability is of paramount importance [3]. If SBET can successfully mitigate developmental delays or enhance vegetative vigor, it could offer a low-cost, eco-friendly adjunct to modern agricultural practices.

This study aims to fill this knowledge gap by rigorously evaluating the morphological (e.g., plant height, leaf width, and biomass) and phenological (e.g., days to tasselling and maturity) attributes of maize under the influence of SBET. By bridging the gap between traditional energetic wisdom and contemporary agricultural science, this research seeks to provide a comprehensive roadmap for the potential integration of SBET into sustainable maize production systems.

MATERIALS AND METHODS

Study site details

The study took place on agricultural territory within the Konkan region at Bhandarwadi, Sindhudurg, Maharashtra, India, between February and May 2025. This site lies between latitudes 15° 37' and 16° 40' N and longitudes 73° 19' to 74° 13' E, featuring an elevation of 26 meters. The local climate is defined by intense summers and mild winters. Peak temperatures hit 40°C during April and May, while dropping to 8°C–25°C throughout the December to February period. Rainfall patterns remain highly inconsistent, often causing significant dry spells and diminished soil moisture levels during the critical stages of crop development.

Seed details

Maize (*Zea mays* L.) seeds (label: 13562, lot: NRSM-270624, purity: 95%) of the Rise 202 hybrid/SHINE™ variety were

sourced from Rise Agro Infra Pvt. Ltd., India. The samples were divided into two cohorts: an untreated control group and a treated group subjected to Spiritual (Biofield) Energy Treatment (SBET/prayers). Following preparation, both sets were sown in designated field plots to evaluate comparative growth, morphology, and productivity. Standardized agricultural practices, encompassing irrigation, fertilization, and pest management, were applied uniformly across both experimental groups to ensure that any observed variations resulted solely from the treatment.

Plot design

A Randomized Complete Block Design (RCBD) was utilized, featuring two primary groups: an untreated control corn group (CONCORG) and a spiritual blessing (Biofield) Energy Treatment (SBET) group (BTCORG). While the CONCORG group received no intervention for seeds or soil, the BTCORG group utilized SBET-treated seeds and land. The experimental area was partitioned into three blocks, allowing for the random assignment of treatments within each block. Six plots were established, each measuring 3.0 m × 3.0 m, with 0.5 × 0.5 m spacing. A 0.5-meter buffer was maintained between replications and 50 cm between plots, across a 70.0 m² total site area with individual 9.0 m² plots. The site was cleared, and standard fertilizer levels (50, 100, and 50 kg NPK ha⁻¹) were directly incorporated into the soil before the sowing process began.

Spiritual energy treatment (blessing/prayer) strategy

The baseline set of maize kernels and fields, labeled CONCORG, served as the untreated sample. The experimental assembly, designated BTCORG, was administered a spiritual biofield energy treatment (SBET), commonly termed blessing and prayer, by Mr. Mahendra Kumar Trivedi. This procedure was conducted on-site for approximately 4 minutes by a veteran biofield energy practitioner possessing over 15 years of expertise. The specialist consecrated the seeds and soil without physical contact. The intervention utilized the laying on of hands and invocations from a distance of roughly 1.5 feet, under conditions of 28 ± 2°C and relative humidity of 65 ± 5%. Throughout this session, the practitioner sought to transmit celestial energy from the Cosmos into the designated kernels and agricultural terrain.

Soil properties

Prior to applying treatments, composite topsoil was gathered from 30 cm depths across every plot *via* a five-point sampling pattern. These specimens were air-dried, filtered (using a 2 mm sieve), and kept at 4 °C before examination. Soil textural classes were identified through the hand-feel technique [8], while soil pH was assessed in a 1:2 (w/v) soil–water mixture utilizing a calibrated electronic pH meter.

Seed plantation and management

The seeds were planted directly into the soil, with manual watering ensuring consistent moisture levels for the first 9 days after sowing (DAS). Following this period, irrigation transitioned to a drip system featuring self-compensating emitters positioned every 0.5 m, each providing a flow rate of 3 L h⁻¹. A basal nutrient load of 50:100:50 kg ha⁻¹ N:P:K was administered using urea, single superphosphate (SSP), and muriate of potash (MOP). The full amounts of SSP and MOP, along with half of the urea, were mixed into the ground pre-sowing; the rest of the urea was applied at 21 DAS. To manage pests, Hamla 550 procured from Gharda Chemicals Ltd., India was sprayed at 2 mL L⁻¹ on 21 and 49 DAS for every treatment. Finally, five plants from each plot were randomly collected at 80 DAS to evaluate growth and yield metrics.

Plant growth parameters

A diverse array of qualitative and quantitative morphological characteristics was analyzed. The qualitative parameters of the crop included growth habit, stem shape, leaf pubescence, leaf color, orientation, texture, and blade width, alongside tassel texture, anther glume pigmentation, silking color, ear shape, husk coverage, kernel color, and grain texture and size. Concurrently, several quantitative metrics were documented, including plant height (cm), stem diameter (cm), leaf count, blade dimensions (cm), days to 50% tasselling and silking, ear length and width (cm), kernels per row, kernel rows per ear, total kernels, grain and straw biomass per plant, and overall grain and straw productivity (t/ha).

Yield parameters

Upon reaching physiological maturity, the corn ears were collected for detailed analysis. Each cob underwent measurement to evaluate dimensions specifically length and

diameter as well as total mass. Dimensions were quantified in centimeters, while weight was documented using a precision balance. To assess productivity, data were gathered from five plants chosen at random within every plot. Finally, the corn yield per net plot was calculated in kilograms and extrapolated into tonnes per hectare through a conversion factor.

Data analysis

Data are expressed as mean ± standard error of the mean (SEM). Differences between two independent groups were assessed using Student’s *t*-test in SigmaPlot (v14.0). Statistical significance was set at *p* < 0.05.

RESULTS

Analysis of soil properties

Prior to planting, the experimental soil for both control and treatment plots were classified as sandy loam soils with strong acidic pH (5.01). This acidic soil condition associated with reduced cation exchange capacity (CEC) and nutrient availability. Following the application of spiritual blessing (biofield) energy treatment (SBET) on lands of treatment group, the soil pH increased to 5.86 measured after harvesting, corresponding to a moderately acidic status. In addition, total potassium and exchangeable cations (Ca, Mg, and Na) were increased in the BTCORG treatment group compared to CONCORG (data not shown).

Morphology of corn plants

The morphological development of the corn was documented through systematic observations at set intervals. This study tracked from the initial germination, seedling phase through vegetative expansion, anthesis (flowering), fruit set, and final harvest maturity (**Figure 1**).

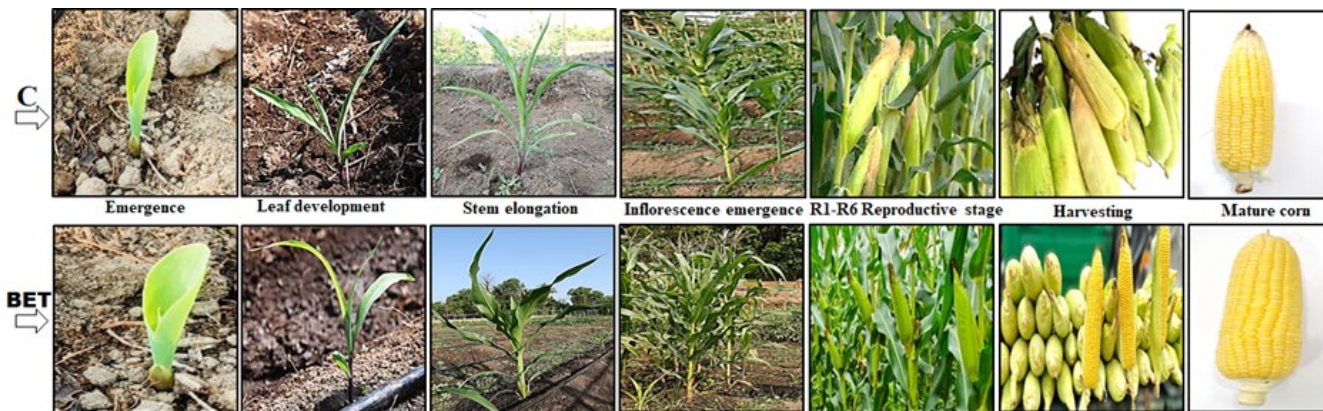


Figure 1. Representative images illustrated the changes in vegetative growth characteristics of corn at different stages. C: Control group; BET: Blessing/biofield energy treatment group.

The phenotypic characterization of maize revealed significant divergence across several botanical parameters, ranging from vegetative architecture to reproductive morphology. BTCORG consistently exhibited more robust and pigmented traits compared to CONCORG. From a vegetative standpoint,

BTCORG was characterized by a dark green leaf canopy with an erect orientation, and prominent pubescence, whereas CONCORG displayed a standard green hue with a dropping leaf habit and an absence of pubescence. Furthermore, anthocyanin pigmentation was distinctly present in the

vegetative tissues of BTCORG but entirely absent in CONCORG, suggesting a higher concentration of flavonoids in the blessing treatment group (Table 1). The reproductive structures further delineated the two groups. The tassel of BTCORG was characterized by a dense texture, purple anther glumes, and a pigmented glume base. In contrast, CONCORG presented a lax tassel texture with light purple anther glumes and no basal pigmentation. Similar variations were noted in the silk at the time of emergence, with BTCORG displaying

a vibrant pink coloration compared to the light pink observed in CONCORG. Regarding ear development, BTCORG produced cylindrical cobs with "very good" husk protection, while CONCORG yielded cylindrical-conical ears with "good" husk coverage. Final analysis of the harvested grain indicated that BTCORG produced larger, soft-textured kernels of a intense yellow hue. Conversely, the CONCORG genotype was distinguished by medium-sized, slightly soft kernels with a standard yellow pigmentation.

Table 1. Effects of blessing (biofield) energy treatment on qualitative vegetative parameters of corn at 80 days after sowing (DAS).

Vegetative trait	Control group (CONCORG)	Treatment group (BTCORG)
Vegetative descriptor		
Plant growth habit	Upright	Upright
Leaf color	Green	Dark green
Leaf orientation	Dropping	Erect
Leaf pubescence	Absent	Present
Leaf texture	Smooth	Smooth
Leaf width	Broad	Broad
Anthocyanin pigmentation	Absent	Present
Reproductive descriptor		
Tassel texture	Lax (less dense)	Dense
Tassel-anther glume colour	Light purple	Purple
Tassel-glume base colour	Absent	Present
Silk colour at emergence	Light pink	Pink
Ear shape	Cylindrical conical	Cylindrical
Husk cover	Good	Very good
Grain quality descriptor		
Kernel row arrangement	Regular	Regular
Kernel color	Yellow	Intense yellow
Grain texture	Slightly soft	Soft
Grain shape	Flat	Flat
Grain size	Medium	Large

Phenology and yield traits

The study data showed a detail the comparative performance of the treatment group (BTCORG) against the control group (CONCORG). The data reveals that the treatment significantly enhanced nearly all vegetative and yield-contributing traits, with particularly robust gains in grain productivity. The BTCORG group exhibited superior early-stage development and structural vigor. The germination percentage increased significantly by 13.80% ($p \leq 0.001$), in BTCORG compared to the control, CONCORG. Plant architecture like plant height and stem diameter increased by 27.05% and 39.08%, respectively ($p \leq 0.001$) in the BTCORG than CONCORG. Parameters related to photosynthetic capacity such as the number of leaves per plant rose by

39.28%, supported by a 16.81% increase in leaf length, and a 45.09% increase in leaf width ($p \leq 0.001$) in the BTCORG than CONCORG. Reproductive priming descriptors such as flag leaf dimensions, critical for grain filling, showed substantial gains, with length increased by 35.08% ($p = 0.004$) and width increased by 36.90% ($p = 0.034$) in BTCORG compared to the CONCORG. Notably, phenological traits like days to 50% tasselling and days to 50% silking showed no statistically significant difference, suggesting the treatment promotes vigor without altering the natural life cycle duration. The treatment significantly altered the reproductive architecture of the crop. While the anthesis-silk interval (ASI) widened by 31.48% ($p \leq 0.001$), this did not negatively impact kernel set. In fact, ear development was markedly superior in

the BTCORG group. Ear dimensions like ear/cob length and diameter increased by 37.16% and 48.09%, respectively ($p \leq 0.001$) in the BTCORG compared to the CONCORG. The number of kernels per row saw a massive increase of 75.70% ($p \leq 0.001$), and the number of kernel rows per ear increased by 32.4% ($p \leq 0.001$) in the BTCORG compared to the CONCORG. The most striking impact of the treatment was observed in final yield metrics. The BTCORG group achieved

a 136.20% ($p \leq 0.001$) increase in total kernels per plant compared to the CONCORG. The harvest index was profoundly shifted; grain yield per hectare rose (152.60%) from 1.54 ton/ha in the control to 3.89 ton/ha in the treatment group. This was accompanied by a 78.5% increase in straw/stover yield per hectare (11.60 ton/ha vs. 6.50 ton/ha), indicating that the treatment boosts both reproductive output and vegetative biomass simultaneously.

Table 2. Quantitative evaluation of the phenological and yield characteristics of corn following spiritual (biofield/prayer) energy treatment.

Vegetative trait	Control group (CONCORG)	Treatment group (BTCORG)	P value
Days to germination	5 -7	5- 6	-
Germination percentage	86.50 ± 0.18	98.48 ± 0.27	$p \leq 0.001$
Plant height (cm)	185.47 ± 2.42	235.64 ± 2.77	$p \leq 0.001$
Stem diameter (cm)	2.84 ± 0.02	3.95 ± 0.05	$p \leq 0.001$
Number of leaves per plant	11.43 ± 0.32	15.92 ± 0.36	$p \leq 0.001$
Leaf length (cm)	74.73 ± 1.46	87.29 ± 1.38	$p \leq 0.001$
Leaf width (cm)	6.52 ± 0.06	9.46 ± 0.08	$p \leq 0.001$
Flag leaf length (cm)	31.61 ± 1.82	42.70 ± 2.04	$p = 0.004$
Flag leaf width (cm)	3.74 ± 0.27	5.12 ± 0.47	$p = 0.034$
Days to 50% tasselling	69.42 ± 1.22	67.58 ± 1.44	$p = 0.358$
Days to 50% silking	72.77 ± 1.13	70.29 ± 1.08	$p = 0.151$
Anthesis silk interval	3.24 ± 0.02	4.26 ± 0.04	$p \leq 0.001$
Tassel branching	16.43 ± 1.02	22.84 ± 1.27	$p = 0.004$
Days to 80% fruiting	75.44 ± 3.26	72.75 ± 1.32	$p = 0.466$
Fruit pedicel length (cm)	3.79 ± 0.02	5.82 ± 0.05	$p \leq 0.001$
Ear/cob length (cm)	18.62 ± 0.32	25.54 ± 0.67	$p \leq 0.001$
Ear/cob diameter (cm)	4.72 ± 0.09	6.99 ± 0.16	$p \leq 0.001$
Number of husks per ear	9.37 ± 0.07	12.90 ± 0.03	$p \leq 0.001$
Number of kernels per row	27.53 ± 1.12	48.37 ± 1.58	$p \leq 0.001$
Number of kernel rows per ear	11.68 ± 0.15	15.47 ± 0.13	$p \leq 0.001$
Kernels per plant	633.45 ± 13.51	1496.56 ± 22.38	$p \leq 0.001$
Kernel weight (g)	0.24 ± 0.02	0.26 ± 0.02	$p = 0.500$
Grain yield per plant (kg/plant)	0.15	0.39	-
Crop duration (days)	93.46 ± 1.20	92.50 ± 1.00	$p = 0.556$
100-grain seed weight (gm)	25.57 ± 0.13	28.51 ± 0.09	$p \leq 0.001$
Total grain yield (kg)	4.15	10.50	-
Grain yield/sq. m plot (kg/sq. m)	0.15	0.39	-
Grain yield/hectare (ton/ha)	1.54	3.89	-
Straw/Stover yield per plant (kg/plant)	0.64	1.16	-
Total straw yield (kg)	17.55	31.32	-
Straw yield/sq. m plot (kg/sq. m)	0.65	1.16	-
Straw yield/hectare (ton/ha)	6.50	11.60	-

Data represented as mean ± SEM (n = 5); $p \leq 0.05$ vs. control group (CONCORG) using Student's t-test

DISCUSSION

The "erect" leaf orientation observed in BTCORG, compared to the "dropping" habit of CONCORG, is a critical agronomic trait. Modern maize breeding prioritizes erect leaves to increase leaf area index (LAI) and improve light penetration to the lower canopy, ultimately enhancing photosynthetic efficiency under high-density planting [9]. Furthermore, the prominent pubescence and dark green hue in BTCORG suggest a robust defence mechanism. Leaf hairs (trichomes) serve as a physical barrier against herbivory and excessive transpiration, while higher chlorophyll density indicated by the darker hue, often correlates with superior nitrogen use efficiency. A defining characteristic of the BTCORG group is the pervasive presence of anthocyanin pigmentation in vegetative tissues, tassel glumes, and silk. Anthocyanins are powerful antioxidants that protect plant tissues from photo-oxidative stress and UV radiation. The vibrant pink silk and purple anther glumes in BTCORG indicate a high concentration of these flavonoids, which are often linked to enhanced reproductive resilience under fluctuating environmental conditions [10]. The transition from the "cylindrical-conical" ears of CONCORG to the "cylindrical" cobs of BTCORG, paired with "very good" husk protection, suggests an improvement in yield stability and grain protection. Enhanced husk coverage is a vital trait for preventing ear rot and protecting against avian pests. At the grain level, the shift toward larger, intensely yellow, soft-textured kernels in BTCORG indicates an accumulation of carotenoids. Carotenoids are not only essential for grain nutritional quality but also serve as precursors for abscisic acid (ABA), a key hormone in drought tolerance [11].

The substantial enhancement in vegetative vigor and reproductive efficiency observed in the BTCORG suggests a profound optimization of physiological processes. The 13.80% increase in germination percentage aligns with findings that specific biological or chemical treatments can mitigate early-stage oxidative stress and improve seedling establishment. According to Farooq et al. 2009 improved initial stand establishment is a critical precursor to maximizing grain yield in cereal crops [12]. The remarkable 27.0% increase in plant height and 39.3% increase in leaf number ($p \leq 0.001$) indicates a more photosynthetic capacity. This structural reinforcement is further supported by the 45.10% increase in leaf width, which likely facilitated higher light interception and carbon assimilation. This phenomenon is supported by Zhu et al. 2010, who state that optimizing canopy architecture and leaf area index is essential for breaking the current yield plateaus in modern agriculture [13]. The transition from vegetative growth to reproductive development in the BTCORG group was characterized by a significant increase in ear/cob length (37.12%) and diameter (48.09%). The massive 136.2% increase in total kernels per plant ($p \leq 0.001$) indicates that the treatment group maintained a superior "sink" capacity during the grain-filling period. As noted by Boyer et al. 2004, the ability of a plant to maintain

kernel number is the primary determinant of yield stability under varying environmental conditions [14]. The most critical finding was the 152.6% increase in grain yield per hectare in the BTCORG, which was achieved without a significant change in crop duration compared to the CONCORG. This suggests that the treatment enhanced the harvest index by accelerating the translocation of photosynthates to the grain. This is consistent with the metabolic theories proposed by Slewinski, 2012, where increased sink strength drives higher nutrient transport efficiency [15].

Furthermore, the simultaneous 78.5% increase in total straw yield (11.60 ton/ha) in the BTCORG group demonstrates that the treatment did not result in a trade-off between vegetative biomass and grain production. This synergistic growth pattern is a hallmark of high-efficiency agricultural inputs, as discussed by Cassman et al. 2003, highlighting the importance of integrated nutrient and resource management in achieving global food security [16].

CONCLUSION

The application of the spiritual blessing energy treatment (Trivedi Effect®) in the BTCORG group resulted in a highly significant improvement across the majority of agronomic parameters. The doubling of grain yield (ton/ha) suggests that the treatment optimizes the plant's source-sink relationship, primarily by increasing ear capacity and kernel density rather than merely extending the crop duration. In conclusion, these outstanding findings would be cost-effective and beneficial to the farmers near future.

ABBREVIATIONS

NPK: nitrogen phosphorus potassium; SBET: spiritual blessing energy treatment; CONCORG: control corn group; BTCORG: biofield energy-treated corn group; SSP: single super phosphate; MOP: muriate of potash; DAS: days after sowing

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CONFLICT OF INTERESTS

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