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Assessing the Blessing / Biofield Energy Treatment as an Alternative Method for Boosting *Cucurbita moschata* Yield and Vegetative Performance

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Abstract

Cucurbita moschata (pumpkin) is an economically vital horticultural crop valued globally for its nutritional density and industrial applications. Alternative, non-invasive biophysical technologies such as Blessing (Biofield) Energy treatments have recently gained traction as potential eco-friendly interventions to modulate plant physiology and enhance crop productivity without chemical runoff. This study aimed to systematically evaluate the impact of Blessing (Biofield) Energy treatment on the vegetative growth parameters, physiological traits, and ultimate crop yield of *C. moschata* under standard experimental conditions. The experimental design utilised a randomized block layout where *C. moschata* seeds and plots were divided into two primary groups: an untreated control group and the Blessing (Biofield) Energy-treated group. Vegetative traits and yield performance were assessed. The findings revealed a statistically significant enhancement in both the vegetative, reproductive, and productive phases of the treated *C. moschata* plants compared to the control. Vegetative traits such as number of nodes, internodal length, number of female flowers, number of fruits per plant, seed width, seed thickness, and number of seeds per fruit were significantly increased by (35.33%, $p = 0.002$), (33.15%, $p \leq 0.001$), (92.13%, $p \leq 0.001$), 145.54% ($p = 0.008$), (38.18%, $p \leq 0.001$), (80.95%, $p \leq 0.001$), and (31.78%, $p \leq 0.001$), respectively in the treatment group compared to the control. Moreover, a comprehensive improvement of total fruit yield by 28.60% in the treatment group relative to control. These results suggest that Blessing (Biofield) Energy treatment is a promising, zero-emission agronomic tool capable of boosting the phenotypic performance and yield of *C. moschata*.

Keywords: *Cucurbita moschata*, pumpkin, spiritual blessing, phenology, prayer, vegetative performance, crop yield,

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INTRODUCTION

Cucurbita moschata, commonly known as pumpkin, represents an economically and nutritionally vital vegetable crop cultivated globally for both dietary and medicinal applications [1]. The fruit pulp serves as an exceptional reservoir of health-promoting macro- and micronutrients, characterized by high concentrations of functional secondary metabolites including carotenoids (predominantly lutein), diverse phenolic acids, flavonols,

and essential minerals such as potassium and calcium [2]. Beyond its nutritional value, the vegetative and reproductive performance of *C. moschata* was modulated by intricate physiological networks and hormonal pathways that dictate sex differentiation, flower development, and ultimately, fruit yield [1]. Despite its high agricultural demand, traditional cultivation practices heavily rely on synthetic chemical fertilizers and



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exogenous plant growth regulators to maximize production yield. In recent years, the exploration of subtle energy fields such as low-intensity electromagnetic fields and biofield energy treatments have emerged as a novel frontier in alternative agricultural biotechnology [3, 4].

While certain complementary and alternative medicine (CAM) interventions have achieved clinical validation and integration into standard care, modalities lacking established mechanistic bases remain subject to rigorous skepticism. A key example is biofield therapy (BT), categorized by the National Cancer Institute (NCI) as an 'energy therapy.' BT posits that non-contact modalities such as Reiki, Healing Touch, Therapeutic Touch, and Qigong can positively influence pathophysiological processes and health outcomes. Although its underlying biological mechanisms remain uncharacterized, contemporary literature demonstrates high utilization rates, strong perceived efficacy among the public, and significant clinical utility in supportive patient care [3-5]. The objective of this study was to check the effectiveness of spiritual blessing (prayers/biofield) energy treatment on the vegetative growth, development, and productivity of pumpkin.

MATERIALS AND METHODS

Field trial site details

Field trials were established at Bhandarwadi, Sindhurg, Maharashtra, India (15°37'–16°40' N, 73°19'–74°13' E; 26 m above mean sea level), located in the tropical Konkan agro-climatic zone. The site features a tropical climate characterized by mean maximum pre-monsoon temperatures of 40–42°C. Severe interannual precipitation variability often triggers acute soil moisture deficits; this environmental constraint intensifies crop water stress and threatens essential physiological mechanisms during critical growth phases.

Test item (seed) details and study design

Genetically pure (98%) pumpkin seeds (*Cucurbita moschata* cv. 'Red'; Lot No. NURDP099; Label: 17941) were obtained from Namdeo Umaji Agritech (India) Pvt. Ltd. and randomly assigned to a control or a spiritual blessing energy treatment (SBET) group. To isolate the effects of the SBET intervention, all environmental and agronomic conditions including irrigation scheduling, fertilization regimens, and pest management were kept

strictly identical for both cohorts throughout the study period.

Layout of study area

Treatments (two) were arranged in a randomized complete block design (RCBD) with three replications. The experimental site (70.0 m²) comprised three blocks, each containing two randomly assigned 10.0 m² plots (5.0 m × 2.0 m) separated by 0.5 m buffer zones. Plant spacing was 0.5 m × 0.5 m. Before sowing, the cleared site received a uniform incorporation of basal fertilizer at 50, 100, and 50 kg ha⁻¹ of N, P, and K, respectively.

Spiritual blessing (prayer/biofield) energy treatment (SBET) strategy

Spiritual blessing (prayers/biofield) energy treatment (SBET) was provided by Ms. Alice Branton in the BTPUMG (both pumpkin seeds and soil) via an online web-conferencing platform from Florida, USA. However, the CONPUMG (seeds and soil) did not receive any treatment. During blessing the following criteria/conditions were maintained –

- ✓ *Blessing exposure time*: approximately 4 minutes.
- ✓ *Mode of blessing*: distant/remotely from Florida, USA via an online web-conferencing platform
- ✓ *Practitioner's experience*: more than 14 years.
- ✓ *Environmental conditions during blessing*: temperature (28 ± 2°C) and relative humidity (65 ± 5%).
- ✓ *Frequency of blessing*: single

Soil analysis

Baseline physicochemical characteristics were determined from composite soil samples collected at a depth of 30 cm using a five-point sampling design. Samples were air-dried, homogenized through a 2-mm sieve, and maintained at 4 °C prior to analysis. Particle size distribution was evaluated following standard methodologies as per Richer-de-Forges et al. 2022 with few modifications [6]. Soil pH was recorded potentiometrically in a 1:2 (w/v) soil-to-water suspension using a calibrated pH meter.

Crop management and agronomic practices

Following direct seeding, the experimental plots were manually irrigated for a 7-day establishment period prior



to the initiation of surface drip irrigation. The drip system utilized pressure-compensating emitters spaced at 0.5-m intervals with a discharge rate of 3 L h⁻¹. The fertilization regime consisted of a basal application of 50:100:50 kg ha⁻¹ of nitrogen (N), phosphorus (P), and potassium (K), respectively. The initial basal treatment comprised the full allocation of P (as single superphosphate, SSP) and K (as muriate of potash, MOP), combined with 50% of the total N (as urea). The remaining 50% of N was side-dressed at 21 days after sowing (DAS). To ensure uniform plant protection across all experimental units, insect pests were managed using a foliar application of a commercial insecticide mixture (50% chlorpyrifos + 5% cypermethrin; Hamla 550, Gharda Chemicals Ltd., Mumbai, India) at a concentration of 2 mL L⁻¹.

Growth and morphological characterization

To evaluate growth and developmental parameters, five plants were randomly selected from each plot at 80 DAS. Phenotypic evaluation encompassed both qualitative and quantitative agronomic traits. Qualitative attributes recorded included plant vigor, tendril type, tendril branching, vine stem color and thickness, leaf shape and color, leaf blade margin, flower color, fruit shape, fruit skin and flesh color, seed color, and seediness. Quantitative traits evaluated consisted of main vine length (m), number of primary branches per vine, number of nodes per vine, internode length (cm), vine stem diameter (cm), leaf blade length and width (cm), days to 50% flowering, fruit weight (g), fruit length and diameter (cm), seed length and width (cm), and total yield (t ha⁻¹).

Yield parameters

At physiological maturity, pumpkin fruits were

harvested to evaluate yield parameters. Fruit size and mass were quantified using digital calipers and a digital balance, respectively. Data were collected from five randomly sampled plants per plot, and the net plot yield was extrapolated to tonnes per hectare (t ha⁻¹).

Statistical analysis

Data are expressed as mean ± SEM. Inter-cohort differences were analyzed *via* an unpaired, two-tailed Student's *t*-test. Analyses were conducted using SigmaPlot (v14.0), with statistical significance set at $p < 0.05$.

RESULTS

Soil properties

Significant improvements in key physicochemical parameters were observed in the BTPUMG treatment group relative to CONPUMG, characterized by superior water-holding capacity and enriched levels of exchangeable cations (Ca²⁺, Mg²⁺, and Na⁺). These results demonstrate a substantial modification of the sandy loam soil matrix (data not shown).

Morphology of pumpkin plants

Morphological characterization and phenological tracking of *Cucurbita moschata* were conducted *via* systematic observations at predefined intervals. The evaluation captured the complete ontogenetic trajectory of the crop, partitioned into distinct operational phases: germination, seedling establishment, vegetative growth, floral initiation, fruit development, and final harvest (**Figure 1**).

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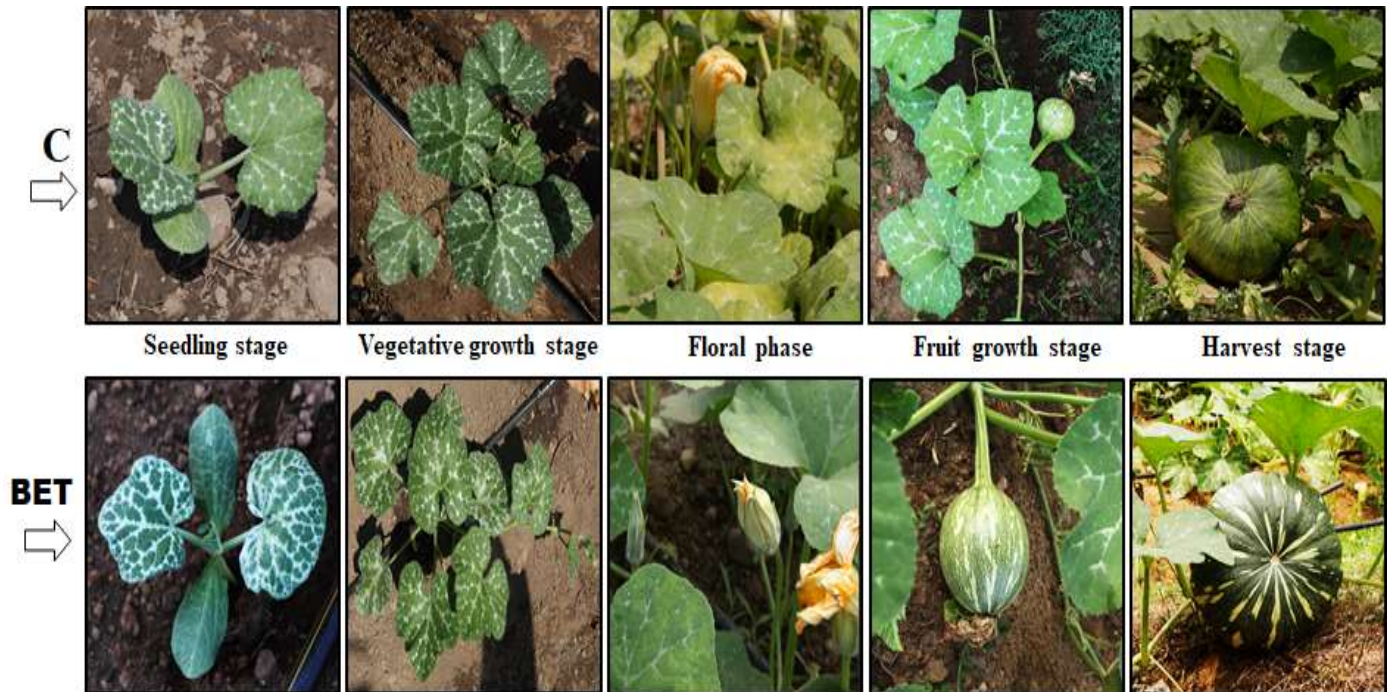


Figure 1. Representative images illustrate the changes at different stages of the vegetative growth characteristics of the pumpkin. C: Control group; BET: Blessing/biofield energy treatment group.

Morphological attributes

Periodic evaluation of vegetative and reproductive traits revealed distinct phenotypic variations between the experimental cohorts. The biofield energy-treated pumpkin group (BTPUMG) demonstrated superior early seedling vigor, increased vine diameter, and dark green stem pigmentation relative to the control group (CONPUMG), which exhibited intermediate vigor and thinner, medium-green stems. Distinct variations were also observed in foliar architecture; BTPUMG foliage was uniformly dark green with deeply incised margins, whereas CONPUMG leaves were green with weakly incised margins. Additionally, the treated cohort exhibited enhanced floral and fruit pigmentation, evidenced by deep yellow corollas and dark green immature fruits, contrasting with the standard yellow flowers and medium-green immature fruits observed in the CONPUMG. At

maturity, BTPUMG and CONPUMG exhibited distinct phenotypic variations. The exocarp of BTPUMG fruits was creamy brown with a smooth, non-waxy texture, whereas CONPUMG fruits displayed a yellowish-brown color with a distinctly waxy cuticle. Mesocarp coloration also differed, appearing deep yellowish-orange in BTPUMG compared to a lighter yellowish-orange in CONPUMG. Furthermore, seed quantity per fruit varied significantly: BTPUMG fruits exhibited high seed abundance (greater than 100 seeds/fruit), whereas CONPUMG fruits maintained a moderate range (50–100 seeds/fruit). In contrast, no significant morphological differences were observed between the two groups regarding leaf shape, fruit shape (at both the blossom-end and mature stages), mature seed traits (shape and coloration), or tendril morphology (including type and branching) (**Table 1**).



Table 1. Effects of blessings (prayer/biofield) energy treatment on qualitative vegetative parameters of pumpkin at 80 days after sowing (DAS).

Vegetative trait	Control group (CONPUMG)	Treated group (BTPUMG)
Early plant vigour	Intermediate	Vigorous
Tendrils	Present	Present
Tendrils type	Coiled	Coiled
Tendrils branching	Branched	Branched
Vine stem thickness	Thinner	Thick
Stem colour	Medium green	Deep green
Leaf shape	Cordate	Cordate
Leaf blade margin	Weakly incised	Strongly incised
Leaf colour	Green	Dark green
Flower color	Yellow	Deep yellow
Colour of immature fruit	Medium green	Dark green
Colour of mature fruit	Yellowish brown	Cream brown
Blossom-end fruit shape (at maturity stage)	Depressed	Depressed
Fruit shape (at maturity stage)	Round flat	Round flat
Waxiness of mature fruit skin	Present	Cream
Colour of fruit flesh	Yellowish orange	Yellowish deep orange
Seed shape	Elongated	Elongated
Seed colour (at mature harvest stage)	Cream	Cream
Number of seeds (seediness)	Medium (50-100)	Large (>100)

Phenological and yield-related attributes

Spiritual blessing (biofield) energy treatment (SBET) in the BTPUMG, significantly enhanced the seed germination rate by 14.18% ($p \leq 0.001$) compared to the control (CONPUMG). Phenotypic structural traits were similarly augmented, with significant increases observed in node number (35.33%, $p = 0.002$), internodal length (33.15%, $p \leq 0.001$), and vine stem diameter (20.69%, $p = 0.002$). Parameters governing vegetative and photosynthetic capacity also improved under BTPUMG treatment, including leaf number per plant (29.08%, $p \leq 0.001$), leaf length (8.64%, $p = 0.010$), and leaf width (14.18%, $p = 0.003$). Furthermore, BTPUMG application accelerated reproductive ontogeny, reducing the days to first flowering by 11.96% ($p \leq 0.001$) and days to 50%

flowering by 11.68% ($p \leq 0.001$), while significantly increasing the number of male (26.94%, $p \leq 0.001$) and female flowers (92.13%, $p \leq 0.001$). Yield-attributed traits showed parallel improvements; fruit number per plant rose by 145.54% ($p = 0.008$), fruit width by 22.23% ($p = 0.003$), and flesh thickness by 22.76% ($p \leq 0.001$). All evaluated seed traits including 100-seed weight (29.28%, $p \leq 0.001$), seed length (15.38%, $p = 0.004$), seed width (38.18%, $p \leq 0.001$), seed thickness (80.95%, $p \leq 0.001$), and seed count per fruit (31.78%, $p \leq 0.001$) were similarly elevated. Collectively, these comprehensive agronomic enhancements culminated in a 28.60% increase in total fruit yield ($t \text{ ha}^{-1}$) (**Table 2**).



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Table 2. Quantitative assessment of the phenological and yield characteristics of pumpkin following spiritual blessing (biofield/prayer) energy treatment.

Vegetative trait	Control group (CONPUMG)	Treated group (BTPUMG)	P value
Days to germination	5-7	5-6	-
Germination percentage	85.67 ± 0.26	97.82 ± 0.36	$p \leq 0.001$
Vine length (m)	3.34 ± 0.34	4.31 ± 0.51	$p = 0.152$
Number of nodes	23.21 ± 1.03	31.41 ± 1.52	$p = 0.002$
Internode length (cm)	8.87 ± 0.13	11.81 ± 0.32	$p \leq 0.001$
Vine stem diameter (cm)	1.45 ± 0.03	1.75 ± 0.06	$p = 0.002$
Leaf length (cm)	17.01 ± 0.24	18.48 ± 0.37	$p = 0.010$
Leaf width (cm)	14.03 ± 0.21	16.02 ± 0.42	$p = 0.003$
Number of leaves per plant	95.68 ± 1.23	123.50 ± 1.42	$p \leq 0.001$
Days to first flowering	32.18 ± 0.28	28.33 ± 0.39	$p \leq 0.001$
Days to 50% flowering	54.64 ± 0.35	48.26 ± 0.35	$p \leq 0.001$
Number of male flowers	14.03 ± 0.32	17.81 ± 0.69	$p \leq 0.001$
Number of female flowers	4.45 ± 0.26	8.55 ± 0.37	$p \leq 0.001$
Days to fruit maturity	75.05 ± 2.60	73.46 ± 2.63	$p = 0.679$
Average fruit weight (kg)	2.35 ± 0.12	2.62 ± 0.35	$p = 0.486$
Number of fruits per plant	1.12 ± 0.26	2.75 ± 0.38	$p = 0.008$
Crop duration (days)	113.87 ± 3.04	112.57 ± 2.58	$p = 0.753$
Fruit length (cm)	22.58 ± 1.24	26.19 ± 1.05	$p = 0.057$
Fruit width (cm)	18.35 ± 0.37	22.43 ± 0.87	$p = 0.003$
Fruit flesh thickness (cm)	2.68 ± 0.08	3.29 ± 0.04	$p \leq 0.001$
Rind thickness (mm)	2.28 ± 0.05	2.29 ± 0.04	$p = 0.880$
100-seed weight (gm)	7.24 ± 0.06	9.36 ± 0.04	$p \leq 0.001$
Seed length (cm)	1.43 ± 0.05	1.65 ± 0.02	$p = 0.004$
Seed width (cm)	0.55 ± 0.03	0.76 ± 0.01	$p \leq 0.001$
Seed thickness (cm)	0.21 ± 0.01	0.38 ± 0.01	$p \leq 0.001$
Seed count/fruit	110.87 ± 4.14	146.11 ± 3.32	$p \leq 0.001$
Number of fruits	17	22	-
Fruit yield (kg)	40.59	52.20	-
Fruit yield/sq. m plot (kg/sq. m)	1.35	1.74	-
Fruit yield/hectare (tones/hectare)	13.53	17.40	-

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



DISCUSSION

The Spiritual blessing (biofield) energy treatment (SBET), applied to the treatment group (BTPUMG), significantly increased seed germination rate compared with the control group (CONPUMG). This initial developmental acceleration suggests that biofield energy may induce metabolic adjustments during the critical early imbibition and enzymatic activation phases, mirroring optimized germination dynamics observed in pumpkin cultivation as evaluated by Liang et al. 2022 [7]. The proactive stimulation of seed vigor through non-chemical means (SBET) could be linked to an enhanced tolerance or mobilization efficiency of internal nutrient resources, a process critical to overcoming early-stage seedling establishment limitations as outlined by Asadi et al. 2022 [8]. Following successful emergence, phenotypic structural traits were heavily augmented under BTPUMG, with significant increases observed in node number, internodal length, and vine stem diameter. These reinforced architectural dynamics follow healthy, vigorous vegetative curves that support long-term crop stability, which aligns with growth observations where structural stem thickness and vine elongation serve as basic indices for plant stamina as recorded by Ren et al. 2024 [9].

Concurrently, parameters governing vegetative and photosynthetic capacity also substantially improved under BTPUMG treatment, including leaf number per plant, leaf length, and leaf width. This profound expansion of the foliar canopy directly boosts light-harvesting capacity and source-to-sink efficiency as evaluated by Sure et al. 2012 [10]. Beyond raw biomass production, BTPUMG application successfully accelerated reproductive ontogeny, reducing the days to first flowering and days to 50% flowering. Shortening the vegetative-to-reproductive transitional phase was a prized agronomic trait that protects crops against late-season pressures and optimizes harvest timing, an independent baseline behavior detailed by Ramjan and Ansari, 2020 [11]. This preferential expansion of pistillate (female) flowers optimizes the total flower-to-fruit conversion ratio, mirroring physiological advancements where shift patterns in sex expression directly pre-determine reproductive capacity as documented by Sure et al. 2012 [10]. The field-level performance of these yield-attributed traits showed parallel improvements; fruit number per plant, fruit width, and flesh thickness rose in the BTPUMG compared to the CONPUMG. This balanced expansion of

both physical count and individual fruit dimensions proves that the energetic biofield energy treatment supported continuous balancing pumpkin yield dynamics as explained by El-Hamed and Elwan, 2011 [12].

Simultaneously, all evaluated seed traits including 100-seed weight, seed length, seed width, seed thickness, and seed count per fruit were similarly elevated. This uniform enhancement of reproductive progeny metrics demonstrates a highly coordinated upregulation of photosynthate distribution towards seed filling, which compares favorably to complex hormone-driven grain and seed-size distribution balances outlined by Sure et al. 2012 [10]. Collectively, these comprehensive agronomic enhancements culminated in a 28.60% increase in total fruit yield ($t\ ha^{-1}$). This substantial increase validates the potential of biofield energy treatments as an effective, sustainable approach to increasing field output, mimicking peak productivity curves traditionally generated through intensive soil nutrient and organic cultivation regimes as demonstrated by Ren et al. 2024 [9]. Ultimately, the broad physiological upgrades noted in this study from germination to final fruit mass align consistently with historic biofield energy literature targeting structural modifications in vegetable and crop systems as characterized by Trivedi et al. 2015 [13-16].

CONCLUSION

The current study outcomes significantly improved both vegetative and yield-related parameters in the blessing treatment group compared to the control (untreated) group. This study provides a foundational framework for incorporating biophysical methods into sustainable farming systems. Further molecular, genomic, and biochemical investigations are recommended to elucidate the precise mechanisms underlying these positive physiological transitions.

Abbreviations

SBET: spiritual blessing (biofield) energy treatment; CONPUMG: control pumpkin group; BTPUMG: biofield energy-treated pumpkin group; SSP: single super phosphate; MOP: muriate of potash



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Conflict of Interests

Author AB was employed by Trivedi Global, Inc. NRP, VDK, and TBG were employed by Shree Angarsiddha Shikshan Prasarak Mandal's College of Agriculture, Sangulwadi, Mohitewadi, Maharashtra, India. Authors SM and SJ were employed by Trivedi Science Research Laboratory Pvt. Ltd.

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REFERENCES

[1] Li Q, Zhang L, Chen P, Wu C, Zhang H, Yuan J, Zhou J, Li X. Genome-wide identification of APETALA2/ETHYLENE RESPONSIVE FACTOR transcription factors in *Cucurbita moschata* and their involvement in ethylene response. *Frontiers in Plant Science*, 2022;13:847754. <https://doi.org/10.3389/fpls.2022.847754>

[2] Kulczyński B, Gramza-Michałowska A. The profile of secondary metabolites and other bioactive compounds in *Cucurbita pepo* L. and *Cucurbita moschata* pumpkin cultivars. *Molecules*, 2019;24(16):2945. <https://doi.org/10.3390/molecules24162945>

[3] Sprengel ML, Teo L, Allen S, Ijssennagger N, Hammerschlag R, Dyer NL, Crawford C. Biofield therapies clinical research landscape: A scoping review and interactive evidence map. *Journal of Complementary and Integrative Medicine*, 2025;31(5):406-430. <https://doi.org/10.1089/jicm.2024.0773>

[4] Delorme A, Cusimano A, Tran M, Nguyen P, Deng D, Fields C, Velišek L, Wagner R, Yang P, Cohen

L. Exploring the mechanisms of biofield therapy through joint electrophysiological recordings in humans and mice. *IBRO Neuroscience Reports*, 2026;21:52-62. <https://doi.org/10.1016/j.ibneur.2026.05.011>

[5] Cohen L, Delorme A, Cusimano A, Chakraborty S, Nguyen P, Deng D, Iqbal S, Nelson M, Wei D, Fields C, Yang P. Examining the effects of biofield therapy through simultaneous assessment of electrophysiological and cellular outcomes. *Scientific Reports*, 2024;14:29221. <https://doi.org/10.1038/s41598-024-79617-3>

[6] Richer-de-Forges AC, Arrouays D, Chen S, Dobarco MR, Libohova Z, Roudier P, Minasny B, Bourenane H. Hand-feel soil texture and particle-size distribution in central France. Relationships and implications, *CATENA*, 2022;213:106155. <https://doi.org/10.1016/j.catena.2022.106155>

[7] Liang L, Chen L, Liu G, Zhang F, Linhardt RJ, Sun B, Li Q, Zhang Y. Optimization of germination and ultrasonic-assisted extraction for the enhancement of γ -aminobutyric acid in pumpkin seed. *Food Science & Nutrition*, 2022;10(6):2101-2110. <https://doi.org/10.1002/fsn3.2826>

[8] Aghbolaghi MA, Sedghi M, Sharifi RS, Dedicova B. Germination and the biochemical response of pumpkin seeds to different concentrations of humic acid under cadmium stress. *Agriculture*, 2022;12(3):374. <https://doi.org/10.3390/agriculture12030374>

[9] Ren F, Zhang J, Ding L, Zhang R, Li F, Li X, Zhong T, Yin M, Yang R, Tian P, Du L, Gan K, Yong T, Li Q, Liu X. Organic fertilizer increases pumpkin production by improving soil fertility. *Frontier in Plant Science*, 2024;15:1467931. <https://doi.org/10.3389/fpls.2024.1467931>

[10] Sure S, Arouiee H, Azizi M. Influence of plant growth regulators (PGRs) and planting method on growth and yield in oil pumpkin (*Cucurbita pepo* var. *styriaca*). *Notulae Scientia Biologicae*, 2012;4:101-107. <https://doi.org/10.15835/nsb427566>

[11] Ramjan Md., Ansari MT. Assessment of yield and



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Copyright © 2026. Spring Journals

9. Branton et al.

quality characters in pumpkin from North East India. Indian Journal of Agricultural Research, 2020;54(4):452-458. <https://doi.org/10.18805/IJARE.A-5300>

[12] El-Hamed K, Elwan, M. Dependence of pumpkin yield on plant density and variety. American Journal of Plant Sciences, 2011;2:636-643. <https://doi.org/10.4236/ajps.2011.25075>

[13] Trivedi MK, Branton A, Trivedi D, Nayak G, Mondal SC, Jana S. Evaluation of biochemical marker - glutathione and DNA fingerprinting of biofield energy treated *Oryza sativa*. American Journal of BioScience, 2015;3(6):243-248. <https://doi.org/10.11648/j.ajbio.20150306.16>

[14] Trivedi MK, Branton A, Trivedi D, Nayak G, Gangwar M, Jana S. Agronomic characteristics, growth analysis, and yield response of biofield treated mustard,

cowpea, horse gram, and groundnuts. International Journal of Genetics and Genomics, 2015;3(6):74-80. <https://doi.org/10.11648/j.ijgg.20150306.13>

[15] Trivedi MK, Branton A, Trivedi D, Nayak G, Gangwar M, Jana S. Evaluation of vegetative growth parameters in biofield treated bottle gourd (*Lagenaria siceraria*) and okra (*Abelmoschus esculentus*). International Journal of Nutrition and Food Sciences, 2015;4(6):688-694. <https://doi.org/10.11648/j.ijnfs.20150406.24>

[16] Trivedi MK, Branton A, Trivedi D, Nayak G, Gangwar M, Jana S. Morphological and molecular analysis using RAPD in biofield treated sponge and bitter gourd. American Journal of Agriculture and Forestry, 2015;3(6):264-270. <https://doi.org/10.11648/j.ajaf.20150306.14>