

## Seed germination test with the influence of *sriyantra*, pyramid and *maha mrtyunjaya mantra*

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*Mantra*, *sriyantra* and pyramid power increases the plant growth and their positive energy has healing qualities. Experiment in the design 1 consists of germination of green gram with the influence of *sriyantra* and pyramid. Paper *sriyantra* and two models of pyramids were used. The control sample was kept under normal white paper. Result has shown that sample kept in plywood pyramid model have maximum percentage emergence and percentage change in radical length. In plastic pyramid sample has shown maximum percentage change in fresh weight of germinated seeds. Paper *sriyantra* sample has shown maximum percentage change in dry weight of germinated seeds. Experiment in the design 2, consists of two samples: control and *mantra*. Each sample contained total of 600 fenugreek seeds. Five trials were conducted with 120 seeds in each trial. *Maha mrtyunjaya mantra* was chanted for 108 times for sample treatment, twice a day at sunrise and at sunset. The result shown that sample treatment with *maha mrtyunjaya mantra* has 1% more in emergence, exponential significance in radical length, 0.33 gm more in fresh weight of emerged seeds and 0.02 gm more in dry weight of emerged seeds compared to control sample.

**Keywords:** Seed germination, Radical length, Pyramids, *Sriyantra*, *Mantra*

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*Sriyantra* is the ancient geometrical form given in *tantra shastra* and continuously researched in scientific studies. *Sriyantra* connect cosmic energy<sup>1</sup>. In *sadhana* and for therapeutic application, various shapes of *yantras* are used. *Sriyantra* is most popular and powerful *yantra* among all *yantras*<sup>2</sup>. In the *sriyantra*, there are combination of circles, squares, triangles, lines and points. In *vedic* knowledge, sound is the first subtle manifestation in creation. It is the purest form of manifestation of energy and consciousness. The sound exists in the form of *spandana*, vibration<sup>3</sup>. *Mantra* is also a sound vibration<sup>4</sup> which has *shakti* and *chaitanya*<sup>5</sup>. *Mantras* were revealed to great ancient sages as the form of subtle sounds when they were in deep meditation. Hence, *mantra* is classified under *sruti*, means that which was heard. *Mantra* protects the one who reflects upon it. *Maha mrtyunjaya mantra* comes from *rig veda* and *yajur veda*. The main power of this *mantra* is to release one from worldly bondage and overcome the fear of death. It mainly helps one to conquer the fear of death<sup>6</sup>. In the experiment of design

1, *sriyantra* and pyramids were used to study their effect on the germination of green gram seeds, as an attempt on validation of life energy existing in the triangular shape as mentioned in the ancient Indian scriptures<sup>7</sup>. In the experiment of design 2, the effect of *maha mrtyunjaya mantra* on the germination of fenugreek seeds was studied.

### Materials and methods

In the experiment of design 1, paper *sriyantra* and two types of pyramid are used for the treatment, paper *sriyantra* (Y1) is of size 9.5X9.5 cm; plywood pyramid (PP1) size is 15X15X12.5 cm; plastic pyramid (PP2) of size 19X19X17 cm. The green gram seeds were used for the germination. In all treatments, one of the sides was kept oriented in the magnetic North direction. Ten trails were conducted for each treatment. Each trail contained randomly selected 40 green gram seeds. Before the start of the experiment seeds were washed in a distilled water to remove presence of any toxic. Washed seeds were soaked with distilled water in petri dish for 9 hrs. Soaked seeds were sandwiched between wet filter paper in a petri dish. Then petri dish was covered with

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respective treatments like control (C), paper *sriyantra*, plywood pyramid and plastic pyramid. Control sample was covered with white paper. Samples are allowed germination for two days. Maintained uniformity moisture in the filter paper by wetted with distilled water on twice a day morning and evening. Fig. 1 shows pictorial demonstration of experimental procedure of design 1. On day 2, number of emerged seeds was counted and the radical length of each seed was measured. The fresh and dry weight of the germinated seeds was also measured. Fig. 2 shows green gram seeds germination pattern on day 2 under different treatments. In the design 2 experiment, *maha mrtyunjaya mantra* was used for the treatment. The fenugreek seeds were used for the germination. Total five trials were conducted for each of control sample (C) and *mantra* treatment sample (M). Each trial contained randomly selected 120 fenugreek seeds. Before start of the experiment dry weight of seeds were measured and were washed with distilled water to remove presence of any impurities. Then washed seeds were soaked in distilled water for 9 hrs. Soaked seeds were sandwiched between two wet filter papers in petri dish and allowed germination for two days. During the germination watering was done twice a day, in the morning and evening to make sure for the wetness of the filter paper. For the *mantra* sample, one female chanter recited *maha mrtyunjaya mantra* for 108 times, twice in a day at 5:15 a.m. and 7 p.m. for two days. Experiment was conducted in a clean room. On day 2, number of seeds emerged were counted, the radical length of each seed was measured. The fresh and dry weight of the germinated seeds was also measured. Fig. 3 shows fenugreek seeds germination pattern of control sample and mantra treatment sample on day 2.

**Results and discussion**

Table 1 contains day 2, parameters results: dry weight of sample, percentage of emergence, mean and standard deviation of radical length, percentage increase in mean radical length, fresh and dry weight and percentage increase in fresh and dry weight of germinated seeds. Table 2 shows results of two sample independent t-test. Figs. 4 & 5 show growth of radical length of each seed of green gram and fenugreek respectively.

**The effect of paper *sriyantra* (Y1)**

On day 2 the test results shown that, with respect to control sample, paper *sriyantra* (Y1) sample

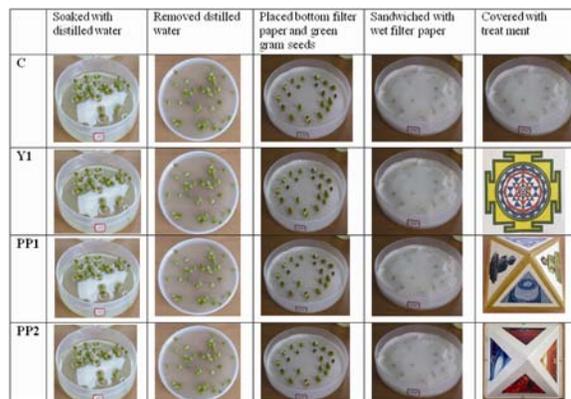


Fig 1—Pictorial demonstration of experimental procedure of design 1



Fig. 2—Green gram seeds germinated on day 2 of design 1

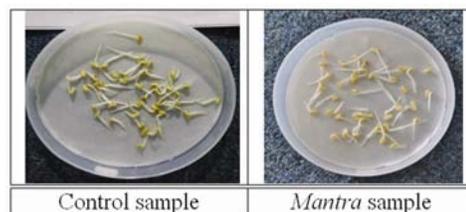


Fig. 3—Fenugreek seeds germinated on day 2 of design 2

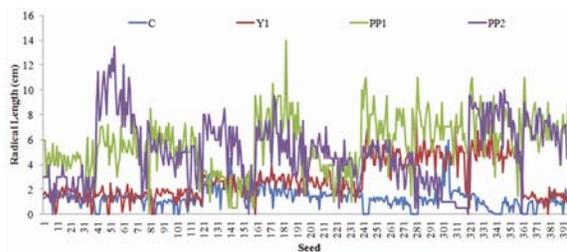


Fig. 4—Radical length of each green gram seed

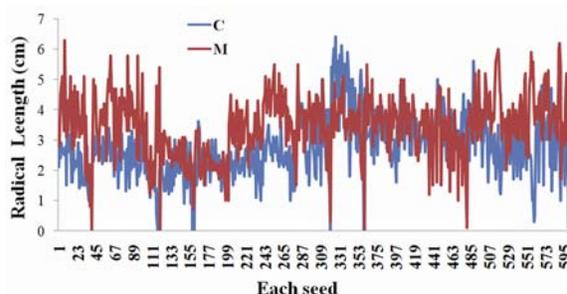


Fig. 5—Radical length of each fenugreek seed

Table 1—Summary of results

Sl No. Variables	Soaked with distilled water	Removed distilled water	Placed bottom filter paper and green gram seeds				Covered with treatment	
			Sandwiched with wet filter paper					
			Treatment for Design 1				Treatment for Design 2	
			C	Y1	PP1	PP2	C	M
Dry weight of sample (gm)			18.61	18.60	18.61	18.61	0.54	0.53
Emergence (%)			91.00	98.00	99.75	99.50	98.50	99.50
Mean radical length (cm)			1.31	2.73	5.65	5.08	2.74	3.45
Increase in mean radical length (%)			-	108.40	331.30	287.79	-	25.61
Radical length (SD)			0.79	1.58	2.25	2.65	1.04	1.05
Fresh weight (gm)			50.64	68.19	91.65	102.85	3.11	3.44
Increase in fresh weight of germinated seeds (%)			-	34.66	80.98	103.10	-	10.56
Dry weight (gm)			13.61	14.67	14.28	13.46	0.43	0.45
Increase in dry weight of germinated seeds (%)			-	7.79	4.92	-1.10	-	4.42

Note: C: Control sample, Y1: Paper *sriyantra* sample, PP1: Plywood pyramid sample, PP2: Plastic pyramid sample, M: *Mantra* sample  
 Legend: Design 1

1 Y1, PP1 and PP2 samples have more percentage emergence, radical length, fresh and dry weight of germinated seeds compared to control sample.

2 PP1 sample has maximum percentage germination compared to Y1 and PP2 samples.

3 PP1 shows maximum mean radical length compared to Y1, PP2 samples.

4 PP2 sample has maximum fresh weight of germinated seeds compared to Y1 and PP1.

5 Y1 sample has maximum total dry weight of germinated seeds compared to PP1 and PP2 samples.

Design 2

1 *Mantra* sample has maximum percentage of germination, mean radical length, fresh and dry weight of germinated seeds compared to control sample.

Table 2—Summary of two sample independent t-test results

Treatment	p-value
C vs Y1	2.2e-16**
C vs PP1	2.2e-16**
C vs PP2	2.2e-16**
Y1 vs PP1	2.2e-16**
Y1 vs PP2	2.2e-16**
PP1 vs PP2	0.00104*
C vs M	2.2e-16**

\*p<0.01, \*\*p<0.001

Legend: 1 Y1, PP1 and PP2 samples shown exponential significant in radical length compared to control sample.

2 PP1 sample shown exponential significant in radical length compared to Y1 sample.

3 PP2 sample shown exponential significant in radical length compared to Y1 sample.

4 PP1 sample shown highly significant in radical length compared to PP2 sample.

5 M sample shown exponential significant in radical length compared to control sample

shows 7% more percentage emergence, 1.42 cm more radical length, 34.66% increase in fresh weight of germinated seeds and 7.79% increase in dry weight of germinated seeds. The study indicated that on day 2, Y1 had positive influence on percentage emergence, exponential significant increase in

radical length, positive influence on fresh weight and dry weight of germinated seeds compared to control sample.

### The effect of plywood pyramid (PP1)

The test results on day 2 shown that with respect to control sample, plywood pyramid (PP1) sample shows 8.75% more percentage emergence, 4.34 cm more radical length, 80.98% increase in fresh weight and 4.92% increase in dry weight of germinated seeds. The study shows that on day 2, PP1 sample had positive influence on percentage emergence, exponential significant increase in radical length compared to control sample and Y1 sample and highly significant in radical length compared to PP2 sample. PP1 sample had positive influence on radical fresh weight with respect to control sample and Y1 sample. This may be due to pyramid may be acting as cosmic energy transmitter to absorb bio energy/life energy/subtle energy from the space around it and acts on the material present inside of it. Earlier research findings have proved that pyramid has mystical uncovered power on the germination of seeds<sup>7</sup>. And also this pyramid power might act as indigenous source of fertilizer by changing respective trace elements in the seeds to influence on emergence

and radical length<sup>8</sup>. PP1 had positive influence on percentage dry weight of germinated seeds compared to control sample but PP1 did not influence more on percentage dry weight of germinated seeds compared to Y1 sample.

### The effect of plastic pyramid (PP2)

On day 2 the test results showed that with respect to control sample, plastic pyramid (PP2) sample showed 8.5% more percentage of emergence, 3.77 cm more radical length, 103.10% increase in fresh weight of germinated seeds and 1.10% decrease in dry weight of germinated seeds. The study indicated that on day 2, PP2 had positive influence on percentage of emergence and exponential significant increase in radical length as compared to control and Y1 samples, but decrease in compared to PP1 sample. Pyramid PP1 is made of plywood with 7 mm thickness and pyramid PP2 is made of plastic with 3 mm thickness. This experimental result had shown that the natural material of PP1 has positive influence on the emergence and radical length even though the size of PP1 is smaller than PP2. Earlier finding have shown that pyramid made with natural material of plywood has more positive influence than pyramid made with non-natural material of fiber glass<sup>9</sup>. PP2 had more positive influence on fresh weight of germinated seeds compared to control Y1 and PP1 samples. PP2 did not influence more on dry weight of germinated seeds compared to other three samples: control, Y1, and PP1.

### The effect of *maha mrityunjaya mantra*

On the second day, the test results showed that with respect to control sample, mantra sample showed 1% more emergence, 0.71 cm more in radical length with exponential significant, 0.33 gm (10.56% change) more in fresh weight of emerged seeds and 0.02 gm (4.42% change) more in dry weight of emerged seeds. According to ancient scriptures, *maha mrityunjaya mantra* helps one to overcome the fear of death and the word *amba* in this *mantra* means *shakti* composed of three powers: knowledge, will and action. Vibration of this *mantra* might have the power of life energy or bio energy or unknown cosmic energy or electromagnetic energy that acted on the seeds during germination and caused to grow exponential significant in radical length and more percentage of germination compared to control sample, and also from the earlier studies they were evident that *mantra* and

*agnihotra* caused significant growth in radicals and root of rice seeds<sup>10</sup>, musical sound and healing energy caused significant effect on the number of seeds sprouted compared to the untreated control<sup>11</sup> and energy field created by *agnihotra* performed in *agnihotra* vessel of pyramid shape and made of copper has purified the water<sup>12</sup>.

### Conclusion

This experiment examined the effect of paper *sriyantra* and pyramids on the germination test of green gram seeds and effect of *mantra* on fenugreek seeds. Paper *sriyantra* pyramids and *mantra* showed positive influence on germination, radical length, fresh weight and dry weight of germinated seeds compared to control sample. The result showed that sample of pyramid (PP1) made of plywood of natural material had more influence on percentage of emergence, percentage of fresh weight of germinated seeds and exponential increase in radical length of green gram seeds as compared to Y1 and PP2 samples. Y1 showed more dry weight of germinated seeds compared to PP1 and PP2 samples. The result showed that chanting of *maha mrityunjaya mantra* had positive effects on emergence, radical length, fresh weight and dry weight of emerged seeds. Chanting of the *mantra* accelerated the rate of growth of fenugreek seeds and also changed the shape of seed radicals. Radicals of *mantra* samples were in straight and radicals of control samples were curved. Seed coat was intact in *mantra* sample while seed coat of control sample was separated.

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