



G.S-9

Rain Induction through Vedic Technology

1) Vedmurti Ketan Kale

He has studied Rigved and Atharvaved in the traditional fashion. He has performed 'Hautra' in Gavamayan Satra and many other Shrouta Yagnyas. He is a Shrout Agnihotri and has performed many Yagnyas like Sagnichitya Vajapeya. He is presently the Acharya at Raja Pathashala, Trivendrum. Shree Yogiraj Ved Vidnyan Ashram, At Kasarwadi, Ta. Barsi, Dist. Solapur, Maharashtra 413 401
02184-224849 e-mail : ashram_yogiraj@sancharnet.in

2) Dr. T. Venugopal

He received his M.Sc. from Barhampur in 1980 and Ph.D. from IISc, Banagalore in 1990. He takes keen interest in Varahmihir's Brihat Samhita.

Indian Institute of Tropical Meteorology,
Dr. Homi Bhabha Road,
Pashan,
Pune 411 008

(O) 020-25893600 Ext. 227 (R) 020-25881843

3) Prof. Vidyadhar Vaidya

He received his M.Sc. from Panjabrao Krishi Vidyapeeth, Akola. He has presented papers in Astrometerology Conference.

Asst. Prof. (Agri. Met.)

Deptt. of Agricultural Meteorology,
CASAM, College of Agriculture,
Shivajinagar,
Pune 411 005.

(O) 020-25535016 (R) 020 - 27287331.

4) Mrugendra Vinod

He received B. E. in Computer Science from M.S. University of Baroda in 1986-87. Later he worked at D.R.D.O. at S.A.G. Metcalfe House, Delhi in 1988-89 as Scientist. Since then he has devoted himself to study of Veda and Vedant.

Shree Yogiraj Ved Vidnyan Ashram,
At Kasarwadi, Ta. Barsi,

Dist. Solapur, Maharashtra 413 401

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1. Introduction

The science of 'Meteorology' can be traced back to Vedic times where Maharshi Parashar declares :

"Vrishti mula krishi hi Sarva Vrishti mulascha jeevanam Tasmadadahu prayatnena Vrishtignyanam Samacharet"

In his opinion, as Rain (Vrishti) is the root cause of life, one must study and acquire knowledge of its formation. The same was retold by Varahmihira in his Brihat Samhita. Thus the word 'Vrishti' appearing in many more Vedic Mantras (Chantings) always emphasized that water is an inseparable entity from human life. The word 'Water' appear in Sanskrit literature in many forms - like Ambha, Udaka, Neera, Jala etc. clarifying about its origin. Water was recognized as 'one'

that appears when 'Fire' disappears.

'Nirgatam radagnen neeram' (Vachaspati Kosha)

Water was also recognized as a product of five basic elements that are responsible for creation :

"Pancheekriyebhyaha eva panchabhutebhyaha

Sthoola taatha utpannam jalabhu"

That water appears when Fire disappears is also mentioned in Chandogya Upanishada (7-11-1).

'Agnerapaha'

The Agni in the form of Sun is the source of Water, as mentioned in Brahma Vaivarta Purana (Adh 21, S. 104)

From the Vedic knowledge on 'Rutu Vignyan' (knowledge of seasons), encyclopaedic writings, called 'Samhitas' have emerged from scholars like Parashar, Narad, Garga, and Varahmihira. These write-ups have not only provided an insight into various emerging sciences but have also suggested various approaches to get the theories practiced.

Yajna is one word which is an admixture of theory and practice of certain knowledge on certain aspect. Yajna is required for fulfillment of certain desire backed by willingness and ability to perform.

Ancient scholars viewed all the resources around the living creatures as 'natural' (Prakriti) gifted by Devas / Devatas (Deities) and any deviation from them leads to chaos or calamity (Vikriti). Unless and until these natural elements are respected, there are chances to loose them totally in future. The 'principle of conservation' was insisted in Vedic tradition. It further urges that ecological balance of nature should not be disturbed and can be maintained by devotion and extending thankfulness to the Devas / Devatas.

If rainfall at a place is a natural support from Devas / Devatas, with a smooth occurrence every year during its season, can the same support be expected from the same Devas / Devatas in the same place when the rains appear to decline over a long period? This is answered in a way indirectly through the performance of perticular Yajna. In other words rain can be induced through the Yajna. Mentioned in Rigved as

'Parjanya Yajna', its performance at a place is understood as a 'Rain Induction Experiment'

Devapi in Mahabharat, the elder brothor of Shantanu (The father of Bhishmacharya) was mentioned in Rigved (M 10, S 10) having attained success over drought removal by performing the Vedic Yajna. Can it be still possible within our times? This intriguing question can be answered with dedicated efforts by complete exploration of ancient wisdom and modern technology.

2. Parjanya Yajna.

One rain inducing experiment cited in Rigved is Parjanya Yajna / yaga. The Parjanya yajna is of two types : 1) The Nitya and 2) The Naimittika. The Nitya Yajna has a fixed period for performance. It is quoted that :

"Kalanu purva vihitascha yajna."

meaning the Yajnas should be performed in relation to time. The Nitya yajna is to be performed in the dark half of twelfth lunar month, Phalguna at the time of moon's entry into Shatabhishaj constellation (Aquarii) of eleventh sign of zodiac (Aquarius). It is important to note that the yajna is performed in the 'Sandhikal' (transit period) between an out-



going and incoming lunar year. Since each constellation in the zodiac is identified to have a deity, Varuna - the rain God is

described as the deity for Shatabhishaj. Hence the time of performing Nitya yajna is identified as 'Varuna Yog'. The period to be considered is from Phalgun (12th lunar month) Krishna (dark half) Trayodashi (the 13th lunar day) to Chaitra (1st lunar month) Shukla (bright half) Dwitiya or Tritiya (2nd or 3rd lunar day). The extension forms of Varun Yog are called Maha Varun Yog and Maha Maha Varun Yog if a Saturday is included. The main aim of Nitya yajna is for anticipation or receipt of 'favourable rains' (termed as Suvrushti in Rigved) in the coming rainy season. In modern times, this can be attributed to long range weather forecasting.

The Nitya yajna can also be viewed as a provider of nourishment to the rain embryo in the celestial (cloud) womb. The rain child is expected to be released in 195 days in analogy with gynecology.

The Naimittika yajna can be performed when long dry spells appear during rainy season. The rainy season from June to September of a calendar year can be considered as the period between Sun's entry into zodiac constellation Mrigashirsha

(Orionis) and Vishakha (Libra). The Naimittika yajna aims at getting immediate rains in and around the area where the yajna is conducted. The methodology of the yajna is available in Maharshi Shounak's Rigvidhan.

In the Parjanya Prayog (The Rain Experiment), the first and foremost requirement is 'Sankalpa' (determined Will) to urge for immediate rains in the area, from a key person couple, called Yajman and his Patni. Followed by, there are Punya Vachan (holy citation), Ritvika Varan etc. Then there will be a 'Japa' of Parjanya Sukta of Rigved (M 5, S 83, Ma 1 - 10) To be rendered in the silence 10,000 times, having wet clothes on body and offering 'Lavala' grass (Cyperus scariosus) dipped in a mixture of cow's milk and pure ghee to the fire at an altar, at the end of each recitation. The same has to be continued for five days and on the last day, Purnahuti is to be offered.

3. Some earlier experiments

3.1 A series of experiments during 1981 to 2003

Both types of Parjanya Yagas viz. the Nitya and Naimittika were performed at the various places of Maharashtra during 1981 - 2003. The details are provided in table 1 and Table 2. These experiments are exclusively carried out by Shri Yogiraj Ved Vignyan Ashram, Kasarvadi, Tal-Barshi, Dist. Solapur, Maharashtra (India) (here after Kasarvadi Ashram).

3.2 A special experiment in Dec. 2003

Seeing the severity of shortage of drinking water in some parts of arid zone of Maharashtra i.e. Solapur, Ahmednagar, Pune districts, faced during the summer monsoon of 2003, Kasarvadi Ashram on suggestion from experts of agrometeorology

and meteorology has performed Vedic rain inducing yajna from 21 to 28 Dec. 2003 simultaneously at five different places - Jagannath puri in Orissa, on the east coast, Akola, Kasarvadi, Neera-narsimhpur and Paravadi (Baramati Dist.) in Maharashtra. Since the experiment was conducted during

winter, cold wave was prevailing. Before the commencement of the experiment, the sky was clear. In two days progress of the Yajna, air temperature and wind speed were observed to rise and there was development of clouds. The cloud pictures were taken at sites. At all respective places, the rainfall amounts (in mm.) were 5, 5, 1, scanty and scanty.

For the healthy growth of Rabbi crops especially like jowar, Maize etc., cloudy atmosphere provides sufficient warming but excess precipitation may lead their destruction. The Dec. 2003 experiment has provided evidence on both these concepts.

4. Project Parjanya

In order to assess the success and failures and to seek advices regarding these yajnik studies, an attempt, first of its kind, has been made to form an Advisory Committee at Kasarvadi Ashram. On the advice of committee, it has been decided to perform 'Project Parjanya' for six years in succession, commencing with a zero experiment period from 18th March 2004. Nine parameters have been selected for observation. They include; 1. Solar radiation 2. Atmospheric pressure 3. Air temperature 4. Relative humidity 5. Wind speed 6. Wind direction 7. Visual clouds 8. Precipitation 9. Astronomical events (planetary motions, solar declination, eclipses etc.)

It is also proposed to install auto weather station (AWS) for meteorological observations at the Kasarvadi Ashram, well in advance of the pilot-Nitya Yajna period. Eleven other places have been selected from Maharashtra and one from Kerala. Modern rain gauges are proposed to be installed at these places. Scientific Personnel from Pune have provided basic knowledge on identification of clouds, processing data obtained from AWS to Yaga Ritviks at Kasarvadi Ashram.

5. Pilot Experiment of Nitya Parjanya Yajna in March 2004.

As mentioned in section 2, the Nitya yajna is time-specified. Hence the period 18 - 23 March had been selected to represent the Sandhi-Kal (transit period) between two lunar years. From Indian Ephemerics, it has been noticed that the entry of moon in the Shatabhishaj constellation is on 19 March at 21 hr 46 min. The Phalguna Krishna Trayodashi is on 18 March and year ending is Subhanu (Sanvatsar). The new lunar year Tarana comes from 21 March nearly coincident with the vernal Equinox (VE) [Since 2004 is Leap Year, VE falls on 20 March.]

As part of proposed 6 - year 'Project Parjanya', the March 2004 Experiment is considered as the zeroth year or pilot experiment. Besides the Kasarvadi Ashram, other 11 places from Maharashtra and one from Kerala have been chosen as experimental sites. They include - Akluj, Pandharpur, Dharashiva, Chakur, Satara, Dhule, Vinchur, Katol, Akola, Salgaon and Pune from Maharashtra and Trivendrum from Kerala.

The Yajna has been conducted for five days and five nights. It is important to notice here that two rain-rich areas of one time on the west coast - Trivendrum (Kerala) and Salgaon (Konkan) are now been described as rainless areas. The 13 sites have their topographic significance as given in Table 3. These stations in general comprise the south - west



monsoon onset region. The surface air temperature at all the sites has been noticed to rise gradually, prior to the Yajna period. Clouds had developed from 24 March but rain spells have been reported after 28 March. Nearly 5 cm of rainfall has been reported during 22 March to 1 April at Trivendrum. The coming monsoon in 2004 is expected to perform well, especially in the dry Maharashtra region as above. The rainfall amounts in mm. during 28 March to 6 June at some of the sites are given in Table 4.

In Maharashtra rainfall amounted to 200 mm. during April 13 to 6 June. The year 2004 has experienced an early onset of monsoon over Kerala coast. Heavy thunder storms and regular monsoon rain have helped in early sowing of Khariff crops like Arhar, Hybrid Jowar Mung etc.. In the Kasarvadi area, unusual Khariff sowing took place from 1 June itself after 42 years in its history. Even in Kerala, the onset of south-west monsoon has resulted in early sowing of paddy crop.

6. Summary.

Shri Yogiraj Ved Vignyan Ashram, Kasarvadi, Tal-Barshi, Dist. Solapur, Maharashtra (India) had successfully performed 21 Naimittika Parjanya Yajnas and 18 earlier + 13 recent Nitya Varun Yog Parjanya Yajnas, not only in

Maharashtra but at places like Jagannath puri in the east coast, Trivendrum in the west coast. The Parjanya yajnas performed according to the procedure prescribed in Rigved, are aimed at - 1. Immediate rains whenever dry condition set during monsoon and

2. homogeneous and well distributed rain during the entire summer monsoon season. The overall success can be attributed to the Rigvedic Principles laid by ancient seers. The ' Project Parjanya ' an experimental project of 6 (0 + 5) years of the Kasarvadi Ashram, initiated in March 2004 aims at expectation of good seasonal rains in the coming five years.

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Table 1.

Nitya Varun Yog Parjanya Yaga in Maharashtra and Kerala during 1984-2004

No.	Place	Date	Result (Annual Rains)
1.	Kasarvadi	24 to 28 March 1984	675.6 mm.
2.	Kasarvadi	March 1986	-
3.	Kasarvadi	27 to 31 March 1987	
4.	Kasarvadi	16 to 20 March 1988	
5.	Kasarvadi	24 to 28 March 1990	
6.	Kasarvadi	20 to 25 March 1993	579.7 mm.
7.	Kasarvadi	28 March to 1 April 1995	602.5 mm.
8.	Kasarvadi	17 to 21 March 1996	932.9 mm.
9.	Kasarvadi	5 to 9 April 1997	523 mm.
10.	Akola(Vidarbha)	5 to 9 April 1997	990 mm.
11.	Trivendrum (Kerala)	5 to 9 April 1997	Heavy Rains
12.	Kasarvadi.	29 March to 2 April 2003	Less than Average
13.	Murligram (Vidarbha)	"	Heavy Rains
14.	Akola(Vidarbha)	"	Good Rains
15.	Chakur	"	670 mm.
16.	Satara	"	Average Rains
17.	Salgaon(Konkan)	"	Very good rains
18.	Trivendrum (Kerala)	"	Good Rains



Table 2.

Naimittika Parjanya Yaga in Maharashtra and some other places during 1981 - 2003

No.	Place	Period	Result
1.	Kasarvadi (Barshi)	24 - 29 March 1981	10 mm rain
2.	Tadvale (Dharashiva Dist.)	8 - 13 Sept. 1981	150 mm rain
3.	Kasarvadi (Barshi)	7 - 11 Nov. 1982	98 mm. rain
4.	Kasarvadi (Barshi)	30 Nov. - 4 Dec. 1982	Cloudy atmosphere
5.	Kasarvadi (Barshi)	12 - 17 Dec. 1982	Dark clouds no rain
6.	Kasarvadi (Barshi)	26- 30 Dec. 1982	Dark clouds no rain
7.	Kasarvadi (Barshi)	14 - 18 Jan. 1983	Cloudy atmosphere
8.	Kasarvadi (Barshi)	28 Jan - 2 Feb 1983	Scanty rain
9.	Kasarvadi (Barshi)	25 Feb - 2 March 1983	Dark clouds no rain
10.	Nimba (Akola)	28 Sept. - 3 Oct 1984	13 mm rain
11.	Barshi (Solapur)	3 - 13 August 1986	111 mm rain
12.	Barshi (Solapur)	27 - 31 Oct. 1986	26 mm. rain
13.	Ahemadnagar	17-23 April 1986	8 mm. rain
14.	Kasarvadi (Barshi)	16 - 23 Sept. 1991	61.2 mm.rain
15.	Akola (Vidarbha)	11-17 Nov. 1991	17.7 mm rain
16.	Barshi (Solapur Dist.)	9 - 14 July 1992	28.5 mm rain
17.	Akola (Vidarbha)	4 - 8 July 1996	91.5 mm rain
18.	Godhra (Kaccha)	21 - 24 Sept. 1996	Dark clouds no rain
19.	Solapur	26 - 30 July 1997	30 mm rain
20.	Gwalior (M.P.)	6 - 10 July 2003	17 mm rain
21.	Kasarvadi (Barshi)	16 - 21 Sept. 2003	147 mm rain

Table 3.

Topographic nature of experimental sites for Nitya Yajna

Experimental Sites	Topographic Nature
Kasarvadi, Akluj, Pandharpur, Dharashiva Chakur Dhule, Vinchur Katol, Akola Satara Pune Trivendrum Salgaon	Dry Zone within 100 Km of sites Black soil zone Rain shadow zone Forest region Holly region Hilly and variable rain zone West coast onset monsoon zone Dry rain zone

Table 4.

Rainfall amounts during 28 March to 6 June 2004 at some sites

Experimental sites	Rainfall Amounts (mm.)
Kasarvadi	150
Akluj	250
Pandharpur	282
Dharashiva	250
Chakur	168
Vinchur	168
Dhule	250
Akola	80
Satara	74
Trivendrum	500
Salagaon	197