Yajna can increase humidity even in winter

Venkata Chaganti*

* Vedas World Inc

DOI: 10.29322/IJSRP.11.01.2021.p10939
http://dx.doi.org/10.29322/IJSRP.11.01.2021.p10939

Abstract- We have done extensive work in the past to test the reduction in air pollution and increase in precipitation by burning Indian Cow Ghee in a process called as Yajna. We are interested in knowing whether the humidity can be increased due to anthropogenic aerosols and in particular due to burning of aromatic compounds such as Indian Cow Ghee (clarified butter) that too in winter (December) in GA? We found that even in peak winter the Yajna process could increase the humidity by about 40%.

Index Terms- Yajna increases humidity, Yajna increases precipitation, Yajna reduces pollution, Yajna

I. INTRODUCTION

Precipitation had been a great interest for a long time and a lot of research had gone into it. A lot of research explains about biogenic aerosols, mass concentrations, hygroscopicity, anthropogenic aerosols, and chemical composition etc. In order to know about the biogenic aerosols, we require pristine atmosphere or unpolluted regions where there is no interference of anthropogenic aerosols, but a lot of biogenic aerosols are present. There are few locations in the world out of which one of them is Amazon where the domination of anthropogenic is the least. The cloud condensation nuclei (CCN) called as aerosol population is important for the formation of clouds and precipitation. The number and size of these particles is important to form the cloud and precipitation. Therefore the humidity depends on the aerosol formation and the type of aerosols.

Measurements were made in the Amazon basin [1] during rainy season and found that CCN were in low hundreds per cc in spite of the transportation of clean air mass from the Atlantic Ocean. Results of five years of observations of CNC (Could Nucleus Concentration) near New South Wales [2] shows a maximum at 6 PM and minimum at 6AM local time due to photochemical reactions that play a major role. These indicate the maximum limit to the natural CCN populations and are also influenced by the long-range pollution transport.

Very low hygroscopicity and concentrations of atmospheric aerosol particles were observed by Gunthe et al [3] in the Amazonian pristine rainforest air for CCN. According to Andreae [4], the polluted air particles are more than pristine particles by one to two orders. Aerosol levels over continents and oceans in prehuman era could be the same [5] and could have reached to a maximum of few hundreds per cc. The authors also considered the prehuman era aerosols contributing to the natural atmosphere to be debris from plants, sea spray, microbes, smoke from wildfires, soil dust, and biological particles including pollen. Secondary organic particles might have been formed from biogenic VOCs. Sulfates might have formed from biogenic dimethyl sulfide and volcanic sulfur dioxide. Effects of indirect aerosol were reviewed by Lohmann et al [6] and concluded that these aerosols can cause climatical implications. Since the clouds can be formed only with the help of preexisting aerosols, it is important to know what kind of aerosols can form cloud condensation nuclei and also cause precipitation.

It is understood that aerosols that are carbonaceous absorb the radiation that was not reflected back into space by the aerosols [7]. Carbonaceous aerosols can be organic carbon (OC) or elemental carbon (EC) which we generally refer to as soot like compounds. Carbon containing compounds are emitted during the combustion processes [8] and if they are in gas phase oxidation, then they form the secondary organic aerosols (SOAs). The author is of the opinion that the organic carbons are vaporizable and natural hydrocarbons are the reason for the SOAs. Electrorheological particles are of size up to 50 micrometers, electrically active, but non-conductive and are present in insulating fluids. Carbonaceous aerosols tend to be strong Electrorheological [9] and are easily obtained by heating aromatic compounds. It is found that Carbonaceous materials with negative electrochemical potential and high reversible capacity have excellent lithium intercalation properties [10]. Carbonaceous materials can be used to obtain Oxygen and Nitrogen from air and are called Carbon molecular sieves [11].

Figure – 1 Yajna

A scientific process called Agnihotra or Yajna is carefully carried by Ritviks (specialists). Yajna Kunda or fire pit is prepared as shown in Fig – 1. Small branches or sticks called Samidhas are obtained from various important trees and placed inside the Yajna Kunda. Fire is lit and then cow ghee is offered at regular intervals along with other food materials. At regular intervals or occasionally precious metals, sandalwood, and herbs are offered. Each offering is called an ahuthi (10 grams) consisting of materials that are mentioned above. In this experiment (Yajna) we have offered around 8,000 ahuthis.

The temperature of the fire in this experiment may be between 200 to 1,000 degrees Celsius and above. The ions/atoms/molecules that are vaporized spread into the atmosphere with good kinetic energy so that these particles travel great distances and lift to great heights because of the lesser density. Interaction with the atmospheric particles and Sun rays cause chemical reactions and subsequently reduce the air pollution. Sappok et al showed that Sulphur dioxide can be removed using Carbon [12].

Puspendra et al showed that [13] that 9% of RSMP, 65% of SMP, 51% of Sulphur Oxide compounds, and 60% of Nitrogen Oxide compounds were reduced after the Yajna (Agnihotra).

More than 50% of the PM (Particulate Matter) was found to be eliminated by Yajna [14]. Rainwater that was collected on the 3rd day after the Yajna was found to have TDS of 34 and a pH of 6.5 pointing to the purity and neutrality of rainwater.

Pathade et al [15] found that within a 30 feet radius from Yajna Kunda the microbial load reduced due to fumes of Agnihotra. The authors also mentioned that Agnihotra fumes increases plant growth, ash collected from the Yajna Kunda removed water pathogens, and finally this ash purifies the water. Vasanthi [16] observed Yajna vapors could possibly produce phytosteroid precursors or brass in brassinosteroids or triggered in plants. In SPM, very high concentrations of Zinc were found after Yajna experiments by Narayana Rao et al [17] and the reason could be due to pumpkin offered in the Yajna.

Each year one large scale Yajna with about 10,000 ahuthis were performed in Georgia, USA [18] and the precipitation analysis was performed. The results show that 23% more precipitation was found when compared to the previous 30 years when there was no Yajna performed in that region.

We have done extensive work in the past [14, 18] to test the reduction in air pollution and increase in precipitation by burning Indian Cow Ghee in a process called as Yajna. Based on the above research works we were interested in knowing whether the humidity can be increased due to anthropogenic aerosols and in particular due to aromatic compounds such as Indian Cow Ghee (clarified butter) in winter (December) in GA?

II. Methods and Materials

Figure – 2 Yajna Kunda Structures

We decided to the Yajna on 25th December 2020 at a time when the humidity falls for at least 3 hours and then start the Yajna. We saw the humidity in the City of McDonough, GA USA was falling from 10 AM onwards and monitored for 3 hours and decided to start the Yajna at about 2 PM.

For getting better results, three different Yajna Kundas were constructed as shown in Figure -2. Square shaped Yajna Kunda (Figure -2-1) was designed with 2 feet - each side and depth 1 foot for this Yajna. Circular Yajna Kunda (Figure -2-2) was designed with 3 feet diameter and 1foot depth and the Semi-Circular Yajna Kunda (Figure -2-3) was designed with 3 feet diameter and depth of 1 foot. Square structure Yajna Kunda was placed on the Eastern side of the Yajna Shaala (Place of Yajna) and Circular Yajna Kunda was placed 2 meters west of the Square Yajna Kunda. Semi-Circular Yajna Kunda was placed on the South Side of the other Yajna Kundas such that the lines joining the three Yajna Kundas form a triangle. The distance between the center of the Circular Yajna Kunda and the center of the Semi-Circular Yajna Kunda is about one meter.

The process started with the initiation of the fire in the Circular Yajna Kunda at about 2:10 PM on 25th December and Agnihotra done for 20 minutes in that Yajna Kunda. Then the fire from that Yajna Kunda is taken to the Square Yajna Kunda and the initiation of fire in that Yajna Kunda was done. At this time Yajna (Agnihotra) was performed in both the Yajna Kundas simultaneously for 20 minutes. Now the fire from the Circular Yajna Kunda was taken and the initiation of fire in the Semi-Circular Yajna Kunda was done and the Yajna was performed simultaneously in all the three Yajna Kundas for about 80 minutes. The Yajna was done for a period of 120 minutes (2 hours) from 2:10 PM to 4:10 PM as described above. The following materials were used to perform the Yajna.

Table -1 Materials used in the Yajna

Materials	Quantity
Fig sticks	20 kg
Indian Cow Ghee	7 kg
9 types of grains	3 kg
Camphor	100 grams

III. Results an Analysis

We obtained the humidity of the location (McDonough, GA, USA) from (https://www.timeanddate.com/weather/@7318092/historic) for 4 hours before the Yajna and 4 hours after the Yajna.

Table – 2 Humidity at McDonough, GA USA on 25th December 2020

Time	Humidity
10:53 AM	38%
11:53 AM	31%
12:53 PM	30%
1:53 PM	28%
2:53 PM	28%
3:53 PM	28%
4:53 PM	29%
5:53 PM	33%
6:53 PM	36%
7:53 PM	39%

As we can see from Table – 2 the average humidity kept decreasing from 10:53 AM to 3:53 PM. After that the humidity started increasing from 3:53 PM to 7:53 PM. This indicates that even in peak winter the Yajna process could increase the humidity by about 40%.

IV. CONCLUSION

The humidity of the air even in winter can be increased with Indian Cow Ghee by doing Yajna.

ACKNOWLEDGMENT

We would like to thank Vedas World Inc members for doing the arrangements for the Yajna. We are thankful for the donors for contributing funds for this project. We would like to thank Ritviks Sama Veda Scholar Mr. Balaji, and Yajur Veda Scholar Mr. Ravi Shankar for providing the Mantra Chanting.

REFERENCES

[1] G. C. Roberts, M. O. Andreae, J. Zhou, P. Artaxo, Geophys. Res. Lett. 28, 2807 (2001).
[2] S. Twomey, K. A. Davidson, K. J. Seton, J. Atmos. Sci. 35, 650 (1978).
[3] S. S. Gunthe et al., Atmos. Chem. Phys. 9, 7551 (2009).
[4] M. O. Andreae, Atmos. Chem. Phys. Discuss. 8, 11293 (2008).
[5] M. O. Andreae, Correlation between cloud condensation nuclei concentration and aerosol optical thickness in remote and polluted regions. Atmospheric Chemistry and Physics Discussions, European Geosciences Union, 2008, 8 (3), pp.11293-11320. hal-00304248.
[6] U. Lohmann, J. Feichter, Atmos. Chem. Phys. 5, 715 (2005).
[7] I. Koren, Y. J. Kaufman, L. A. Remer, J. V. Martins, Science 303, 1342 (2004).
[8] J.H. Seinfeld, Tropospheric Chemistry and Composition | Aerosols/Particles, Encyclopedia of Atmospheric Sciences, 2003.
[9] Electrorheological Fluids, Studies in Interface Science, 2005.
[10] Z. Ogumi et al, Proceedings of the International Conference on Colloid and Surface Science, Studies in Surface Science and Catalysis, 2001.
[11] Francisco Rodríguez-Reinoso, Antonio Sepúlveda-Escribano, Biomolecules, Bio-interfaces, And Applications, Handbook of Surfaces and Interfaces of Materials, 2001.
[12] R.J. Sappok, P.L.Walker Jr, "Removal of SO2 from flue gases using carbon at elevated temperatures", Journal of Air pollution controlassociation, 16th March 2012.
[13] Pushpendra K. Sharma, S. Ayub, C.N.Tripathi, S. Ajnavi, S.K. Dubey, Agnihotra-A non-conventional solution to air pollution.
[14] Venkata Chaganti, Yajna A Solution to Air Pollution, International Journal of Innovative Research in Science & Engineering.
[15] G. R. Pathade, and Pranay Abhang, Scientific study of Vedic Knowledge Agnihotra, Bharatiya Bouddhik Sampada, A Quarterly Science Research Journal of Vijnana Bharati 43rd – 44th Issue, February - June 2014.
[16] Vasanthi Gopal Limaye, Agnihotra (The Everyday Homa) & Production of Brassinosteroids: A Scientific Validation, International Journal of Modern Engineering Research (IJMER), Vol 8, issue 12, December (2018).
[17] Narayana Rao M, Sukruti Duvvuri, Hari Ram Naik, Gopi Kiran.M and Manu Srivatsav G, 2012 International Conference on Environmental Science and Technology IPCBEE vol.30 (2012).
[18] Venkata Chaganti, Yajna causes good rainfall, International Journal of Innovative Science, Engineering and Technology, Volume 7, Issue 2, February 2020.

AUTHORS

First Author – Venkata Chaganti, Ph.D., President Vedas World Inc., vchaganti7@gmail.com

Correspondence Author – Venkata Chaganti, vchaganti7@gmail.com, +1 229 854 5790