



ANCIENT SCRIPT RIGVED ON AGRICULTURAL LIFE

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ABSTRACT

*Rigved era was approximate 4000 to 1500 years Before Christ. During this period Aryans built settlements around region of seven Himalayan rivers- SaptaSindhus. Agriculture was the only means of livelihood then. That's why Aryanculture was agro-culture-nature-culture. Several types, experiments, innovations were carried out by Aryan; certainly they reflected the time and age of the period. The given research is endeavour to find out **krishi-vidya**-agricultural knowledge of aaryan who were inhabitant of rigveda period of ancient Indian history, with help of investigation, contemplations, analysis of rigveda. Various research and commentaries on rigveda have also contributed in presenting this research.*

Purpose

The following intentions were kept at forefront while doing this research

- To find out agricultural knowledge of Aaryan
- To throw light on organic, natural elements of agronomy of selected period
- To research on water management
- To know the influence of agricultural knowledge on contemporary culture

Hypothesis

- Aaryan culture and way of life were impacted by agricultural activities
- The powers of nature were recognized as gods and goddesses by Aaryans
- Cow and animals were considered important by Aaryan of rigveda , while doing agriculture.

Outlook of Agricultural knowledge

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Farming was considered to be supreme among all kinds of work by vaidikaaryan.

They believed that the honour in the world is gained by farming and the peace dwells in the family leading to spiritual excellence. They faithfully believed that this was actually told by the lord Sun.

In the 10th couplet of rigveda Lord Sun edifies the addiction inflicted world and a compulsive gambler

अक्षर्मोदिव्यः - Give up the evil infliction of gambling.

कृषिमितकृषस्व- Do delightful agricultural enterprise.

वित्तेरमस्वः बहुमन्यमानः - Prosperity and grains, comfort and honor

तन्नजाया - Prosperity will bring you company of women

तन्नगावः - Cow wealth and company of women will take you on the path of religion/ righteousness

(10.34.3- Rigved)1

For welfare of the self soul, to excel and benefit in worldly and other worldly life, farming-agricultural deeds (*krishikarma*) were believed to be like *kamdhenu*-holy cow bestowing everything one asks for. This belief was prevalent in that age and time.

This outlook wasn't merely economical but it included all four life sacred acts of a householder; earning, procreation, righteousness and salvation. Along with it farming was meant to shield from evil deeds and depletion of life energy directing and leading the progression of life in right direction.

It means Aryans were polytheist, believed in many gods, this can be known from varied hymns found in *Rigved*.

Gods in Rigved- Agro-culture and Vision

In Rigved about 100 names of gods are found including- *Parjanya*(rain), *Prithvi*(earth), *Varun*(air), *Agni*(fire), *Vaayu* (wind), *Surya* (Sun), *Som*(Herb essence), *Aap* (water), *Usha*, *Rut*, *Aaditya* (Sun), *Saraswati* (a river), *Savita*, etc. gods were forms of natural powers. The Aryans of Rigved worshipped gods of Rain, air, rivers, sun, earth, fire etc. ; the prayers in praise of them were also recited.



Rigved was created by Aggasth, Angiras, Kanv, Garg, Bhardwaj, Chyavan, Parashar, Shakya, Budh, Raam, Jamdagna, Vashisht, Maitravarruni, Vamdev etc. sages (rishi) and awakened sages(brahmharishi) together . The nature was believed to be god, creation of god.

Rigveda refers about 44 kings who revered existence, nature, agriculture

The names of women in rigveda- Aditi, Indrani, Apala, Sarma, Surya, Sudevi, vishala, latepama, Yami, Raji, Lopamudra, Urvashi, Ghoshaetc, are also indicators of power of existence/nature.

In rigveda 28 well know names of women point out the supremacy of nature power during the period of Rigveda.

In Rigveda a great importance is found for *yagna*, holy fire oblation. In *havan* (sacred fire offering) *samidha* (a piece of dry branch of Ashwath tree), *somras* (juice of som plant), cow ghee etc. would be used.Aryans believed that as a result the atmosphere remained purified and the pure energy of things offered to fire would mix in it.

Traditional knowledge : Sustainable methods (organic way)

In the days of rigved, 'Traditional Knowledge' of essential handling and preserving of necessary things for seeds and sowing, how and when of sowing crops, nurturing and reaping of crops, how to keep soil fertile etc. knowledge was developed; however the following things didn't take place.

1. Chemical fertilizers were not in use, in effect the soil didn't turn poisonous and it wasn't invalid for farming.
2. The rain water didn't turn poisonous due to pollution, water reserve and soil water weren't unsound.
3. The soil was fertile; the soil didn't turn to infertile.
4. Genetic diversity existed in agriculture crops because of traditional methods; variety not one crop method was found in farming.
5. Water reservoirs weren't strained for limited population and land was available in large scale.
6. Bio technology wasn't developed and so the hazards of it weren't to be dealt with.

The grass of rice crops was used for house cover by farmers; it was also used as fodder, in fish farming and cattle keeping.

The dung of cow and bull, cow urine were organic fertilizers for farmingThe fallen leaves naturally composed in woods make soil fertile naturally (like fertilizers). Honeybees' pollination enhancesthe production by itself.Cow urine, bitter neemetc plants were put to use

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as pesticides. Rats destruct grains. Worshipping *nag* (cobra) was rat controller. Lord Shiva is found to be wearing *nag* (cobra) around his neck. In Rigved era water weeds grew in sweet and salty water in balanced proportion. The nutrients in water were preserved for long time and it would nurture earthworms and other beneficial bacteria. The reason for this was that the atmosphere was free from pollution and pollutant.

Earthworm was of great importance in Rigved days. To make soil pliant, to create natural fertilizer through excreta by consuming dung and dry and damp leaves, earthworm played crucial role in agronomy; to maintain aerated soil, to allow *prana* inside the soil, to let bacteria grow in soil so that nitrogen oxide in the air can be taken to roots of crops through them, these are work done by earthworms.

According to modern research, Indian earthworm species are of greater value than African, American Australian earthworms; their qualities are supreme and they are very ancient. In those days bioprospersity was in abundance, woods and trees were abundant.

The use of various flowers available was naturally done in accordance with circumstances; for instance marigold (zendu flower) would eliminate crop harming roundworms and crops were protected. Moreover, diverse crops would keep natural balance, reservoirs would turn into medicinal quality for roots of trees etc.

The consumption level was in balance and nature wasn't destructed.

Use of natural fertilizers

On studying way of life of Rigved period, it has been found that the following natural fertilizers were being used in farming.

Cow

From cow, bull, buffalo-

- Fertilizer from dung (several nutrients)-Dung was called *karosh*
- Cow urine (pesticide)
- Milk and curd possible fertilizer

Natural plants

Abundance of purity for Neem tree, banayan tree, Arjun tree, fig tree of India

Plenty of life energy (*pranvaayu*) was available because of forest wealth, lot of trees.

Earthworm



- fertilizer from fallen foliage
- keeps the soil aerated
- favorable to nurture beneficial bacterias.
- maintains the land pores and keeps the land pliable (beneficial to roots)

Offerings of sacred fire

- Creation of various plants and elements from ash
- Purification of air
- Beneficial micro, nano substances in atmosphere

Fallen foliage

- Fallen foliage in the wet soil makes the farm field yielding and favourable
- Nutrients from bio-diversity given to soil in the form of food.

Honeybee

- Pollination increases production
- Production of honey

Sacred Actions(*krushi karma*) of agricultural Knowledge

The couplets (*rucha*)of rigved explicitly state that Aaryan of rigveda would till the fields with wooden plough- a sharpen ploughshare, controlled by yoked bullocks . On getting to farm fields the land is tilled thoroughly and was made pliant, favourable for sowing.

शुनंनःफ़ालाविकृषन्नुभूमिम्- 4.57.8

The subtle knowledge how to create field suitable for sowing was received by them, this can be called one of the agricultural developments. On making field pliant they would make rows on the field and seeds would be sown .

कृतेयोनौवपेतेहबीजम -10.101.3

Generally the sowing was done prior to rain. The sacred rain would fall on the field of sown seeds.

The aaryans prayed to the rain god and the prayers were responded with good rainfall and the crops flourished in abundance.

शुनंपर्जन्योमधुनापयोभिःवर्षतु-(4.57.8) - The sunlight of the sun, food given by the earth, sacred rain of raingod would create supreme quality crops. After seeking blessings from them the ripen crops were ready to reap.



गिराचश्रुष्टिःसभराअसन-(10.101.3) -The picked harvest was brought to plain prepared field (khala) .By threshing grain and huffs are separated.-

खलेनपर्षान् (10.48.7)-Then grain is again separated from remaining chaffs by using winnowing fan

सवतुमिवतितउनापुनन्तो(10.71.2)-The grains are collected and stored in big home mud pot (ranjan), to be used as per necessity.

निर्गाउपेयवमिवस्थिविभ्यः(10-68.3)- The distribution of farming work was in the family. Everyone worked joyfully following natural way of life.

Seeds

Numerous seeds were available in that period of Rigved:

- Seeds of grains
- Seeds of pulses
- Vegetable seeds
- Climber seeds
- Fruit seeds
- Sesame, groundnut, oil seeds
- Medicinal plants seeds
- Special plants seeds
- Tree seeds

The seeds were preserved, nurtured and sowed in appropriate manner.

It can be said that they possessed the knowledge of selecting and sowing supreme seeds.

Chanting of holy mantras while sowing supreme seeds was a custom came into practice in the time ahead of Rigved. The outlook was of penetrating qualitative sacredness in dormant energy of seeds. Some of the scholars are of the view that this custom did exist in Rigved period too.

Food and beverages of Vedic Aryan and production of food-grains



Agriculture was the prime means of livelihood in vedik era. Similarly animals and cattle were cultivated by Aryans. Aryan ate

- Vegetarian-rice, barley, moong, vegetables, fruits, roots
- Milk products-milk,curd,butter,clarified butter (ghee),gorus, payas (kheer)
- Nonvegetarian--goat, birds, fish, meat offered in sacred fire
- Others-honey, sea-substances

In the couplets of Rigved following foods are found to be prepared in milk with grains 2 -

No.	Food item	Couplet from <i>Rigveda</i>	Details
1	Apoop	3-5 /2-7	Chapatti of rice/barley
2	Oden	8-6/9-14	Kheer
3	Karambh	3-5/2-1	Barly and rice fl+ clarified butter(ghee)
4	Ksheer/Gavasheer	8-2-9	Milk into somrasa
5	Dhrut	1-1 34-6	Ghee
6	Dadhi	8-2-9	
7	Payas	4-3-9	Honey+milk+kheer
8	Pitu	1-6/ -7	
9	Prushdajya	10-90-8	Bread like from barley
10	Madhu (honey)	8-4-8	Honey
11	Mundaudan		Kichadi like
12	Yavagu		Kheer like
13	Sura		Wine
14	Som		Drink

Etc.

The main foods of aryan were barley and rice and numerous delicacies were prepared from them. They grew legume like moong too. Reference of wheat is not found in rigveda. Rice and barley were produced by them. In their flour they mixed curd or ghee to make *Karmbh* delicacy. *Dhanais* popped rice (*sallichyaLahya*)and *charu* is rice cooked in ghee or milk.



Inbook 'Shatpath Brahman' the reference of season and crop is found. It is the best specimen of traditional knowledge.

Crop	Sowing period	Reaping/crop cutting
Barley	Winter	Summer
Coriander seeds	Rainy	Autumn
Black pulse	<i>Mrugnakshtra</i> -beginning of monsoon	Winter
Sesame	<i>Mrugnakshtra</i> - beginning of monsoon	Winter

Plants in Rigveda

Various names of plants are found in Rig-Veda. Some of them are known. The magical plant Som is somewhat unknown.

The names of plants in *Rigveda* are –

- Aushadhi 1.1 91.2
- Kushar 1.1 91.3
- Ghass 1.16 2.14
- Trun 1.16
- Darbh 1.191.1.3
- Durva .134.5
- Vairin 1.191.3
- Sharr 1.191.3
- Sairyya 1.191.3
- Moonj (type of grass) 1.191.3
- Khadir 3.53.19
- Apushpa 10.9.15
- Afala 10.97.15
- Uttanparn 10.145.2
- Parrn 10.97.5
- Palash 10.135.1
- Pushkar 10.184.2
- Pushpini 10.97.15
- Falini 10.97.15
- Shalmali 10.85.20



- Shitika 10.16.14
- Som 9.65.23
- Shimbali 3.53.19

RigvedicAaryan of agro cultural used these plants for medicines, creation of beneficial literature, perfumes, wine, sweetener etc.

The more plants known to Aryan of Rigved were-

- Sea moss and sea weeds
- Plants in rivers and water reserves
- Various roots
- Beneficial and medicinal forest plants
- Special plants like *Somvalli*

The following agro tools and instruments were found in Rig-Veda period-

Instrument/agro tool	Rigveda couplets
Plough (seera)	10.101.4
Sickle (srundi)	10.101.3
Faal-no English name	4.57.8
Indian plough (langl)	4.57.4
Yuga-no English name	10.101.3
winnowing fan (titau)	10.71.2
Kinasha/Nagrya-no english name	4.57.8
Sthivi/Kanj---no English name	10.68.3
Water well (Aahav/vihir)	10.101-1.5
Fenced open field (khal)	10.48.7
Rein (Varstra)(lagaam)	4.57.4
Whip (ashtra) (chabuk)	4.57.4
Vraj/gon- no English word	10.101.8

Essential instruments for fertile fields were created in vaidik period; Iron was used to large extent along with wood, leather, brass etc.

Rivers and agronomy

Two prime rivers are mentioned in Rigved –Sindhu and Sarswati.

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Sarswati has a position of great importance. It is said that river Yamuna meets Ganga, and river Aapya, river Hashduti meet Sarswati.

Aaryan civilization was agri-centered and largely developed around river beds. The fertile land around rivers had their cities, towns, settlements and human habitats.

The rivers described in rigveda are-

1. Sindhu
2. Sarswati (invisible)
3. Vipash (Viyas of present)
4. Shutundri (Satlaj of present))
5. Vitasta (zelum)
6. Saryu (sharyu of Ayodhya)
7. Yamuna
8. Ganga
9. Aavsini (Chinav)

These are known rivers. Names of some more rivers are mentioned that are unknown.

1. Anitbha
2. Ashvanvati
3. Anshumati
4. Aapya
5. Arjikiya
6. Kubha
7. Kumu
8. Gomati
9. Trushtya
10. Drushdwati
11. Marudvrudh
12. Ychyayati
13. Raksha
14. Shwetyavari
15. Shewati
16. Subdudha
17. Sashoma
18. Susrtu
19. Hariyupiya etc.



The flourishing prosperous rigvedic culture was largely around rivers. The mountains mentioned in rigved are Himvat that means today's Himalaya and Moojvat, except these two not much description of mountains is found in rigved.

Moojvt was perhaps part of Himalaya. Similarly Sharyanavat is the only lake mentioned in rigved, this is near Kurukshetra. It can be said that the agriculture society of rigved wasn't much near mountains but rivers. This finding is endorsed by archeological survey.

Water Management

The evidences of water management in sindhu Civilisation are found in the present

In Kautalya's Arthshashtra, a rule book is given on the use of water. On the edicts and copper plate (tamrapatra) of Saatvaahan era water projects, rivers and dams, water storage etc information is given. The sutras of water management have existed since ancient days.

In rigved rain was god. Rivers were revered religiously as goddesses. Aapodvat (water god) is described in it. Rain is cloud. This god roars and pours.

- River water
- Water lakes (water bank)
- Rain water
- Earth water
- Water basin in farms

Water awareness- water literacy-water knowledge, how to use water, rain water etc were known to them. The mathematics of use of available water and population was right. This civilization lived near rivers and vales.

The crops were taken yearly, eight monthly and seasonal. Forest agriculture took place automatically. The production capacity of water was quite good. Expansive farm fields and green pastures are found to be described.

In rigved and Yajurved some couplets on water management are given. "Sthapayved is a subordinate ved of Atharv Veda. However not a single copy of it is available in home country, india. In some libraries of Europe a few copies are found; in its appendix 'tadagvidhi' - a complete process of creating water reservoir is given."³



Ahead of rigved in KrishiParashar, KashyapKrishiSukt couplets on water storage, distribution, rainfall prediction are found.

In NaradShilpshastra and BhrguShilpshastra, the description of water management of sea fort and river fort is given. Varahmihir also wrote (AD 505) on water management (BruhantsanhitaKosh- UdkargalAdhyay); he writes where the tree branch is tilted towards earth, that place has water inside, blunt thorns of thorny plant indicate the water existing in the earth.

Shri Mahajan writes on water management of Rigved days-“The crops were reaped two times. Irrigation was done by manmade canals and sowing of seeds was done generally two times.”⁴ Also Shri.Mahajanwrites despite heavy rainfall, the damage was minimal.

Agricultural Life and Importance of cow

In rigved the greatness of cow is depicted. Cow is the most useful animal makes her loved, reverd and holy. cow would give milk, curd, buttermilk, buter, kher, ghee etc. Cowdung was used as fertilizer, to apply (*saarvane*)in naturally made houses. Cow urine sprinkled on crops and around sheds, to shoo away insects and worms. The bricks made from cow dung(govarya) was useful as fuel. Cow milk. Ghee were beneficial like medicine. In sacred fire offering cow milk and dhrut were used. That’s how cow was proven to be treasure. It was used as currency and religious donations. The cow gained importance as mother of bullock that is useful in farming, travelling and transporting.

Religious honour mad cow killing illegitimate. In rigved cow is mentioned like this-

- भद्रंगृहकृणुथ(6.28.6) Cow brings divine beauty home
- मातारुद्राणादुहितावसूनांस्वसदित्यानाम(8-101-15)-Cow is mother of Rudra, daughter of Vasu,sister of Aditya
- अमृतस्यनाभिः (8.101.15) -It is mine of nectar like milk.
- भद्रवाचः (6.28.71) - Her voice is auspicious sound
- गावोभगोगावइन्द्रोमेअच्छत (6.28.5)-Auspicious cow give us indra and Bhag .

Likewise the cow should not be troubled by evil, sinner and thieves, stated in rigved.

Rishi Bharadwaj says,“प्रनुवोचंचिकित्तुषेजनायमागामनेहसामदितिवधिष्ठ” 5(Rigved 8.121.15)



It means innocent, beneficial, auspicious and poor cow..be good wisher of her! Don't murder her.

According to modern research, approximately 120 species of Indian cow have existed since the time ancient to vedik era.For instance- * Sahivaal (sindh region),Geer (gujraat region) ,Dangi , Devani , Kandhari, Etc.

The modern research has proven the utility of Indian (indigenous) cows.

Agriculture and Cow Keeping- Combined Enterprise

In ancient days agricultural work was the main enterprise of Aryan. Initial nomdianwondering tribe of aryan , settled around fertile land of seven rivers.

In rigvedagri tax is mentioned. Agricultural enterprise included cow and women too.

Rigved says farming brings honour ;prosperity can be enjoyed.

“Agricultural activities fetched grain prosperity and cow protection brought benefits of milk and milk products that favoured keep up of the family and god worship. In Aaryan families both enterprises – farming activities and cow keeping gained tremendous importance.”⁶

Bullocks were useful for farming work, likewise cows for milk etc. Vaidikaaryan did farming and cow keeping together.Farming was known as supreme enterprise.

Life ofAryan had religious flow, P V Kaane says on Aryan religion-“Our religion like other religions is not consolidation of several opinions, but way of living is its form. Eat, drink and enjoy- comes naturally to us, it is not something to be told, however the conduct has to be regularized, says religion.”⁷

Cattles in Agriculture

Worshipping animals wasn't a custom in rigveddays.The region of Sindhu, Punjab and Ganga Jamuna were fertile and conducive to cattle keeping. Expansive green pastures and water reservoirs existed . The cattle keeping was on rise. In RigvedRudra and Pooshan theses gods explains the way of life of cattle keeper tribe. Rudra is head of animals.

Laxmshastri Joshi says, “rigved and other Vedas are replete with descriptions of prosperity of cow,bullocks,horses,sheep,goats, buffalo,elephants and camels. These animals were used for meat, milk and dairy produce,clothes,transportation and farming activities. Cow, bull,sheep,goat camel and horse were used for meat. The rustic animals were also used as means of exchange. Like currency a medium for buying and selling , animals were used.”⁸



At that time cow, freshening cow, bullcalf, heifer, buffalo, horse, bull of bullock cart, bullock-cow pair, sheep etc were used as things. . The horse was used in wars, races, travel; horse had importance next to cow.

Bulls, horses, donkeys etc were used as vehicles for transport and in chariot. Rishi kshwan says, by receiving 100 bulls I spread his glory in heaven(Rigved 1.17.2) . Vrushya says. 100---, 100 dogs. 100 skins. 100 grass bundles, 400 bright horses are mine(Rigved 8.55.3) .

Such descriptions of animal wealth animal prosperity are found in rigved. Expansive pastures were for animals, they were well taken care of

Agricultural Physician

Everyday food intake is medicine. For some illnesses special herbs were used. Aaryans knew various qualities and their effects of plants found near water reservoirs and geographical locations.

During that era medical field was also developed. An adjective ' bhihk' is found in rigved. It is used for humans and gods both. First of all Rudraas called bhishak. Ashvidev was expert surgeon, his surgery brought eyes to blinds and implanted mettle lap(1.17 6.15 and 1.116.6) In rigved time a distinct group practicing medicine was there. The medicine was called bhesha and the physician called bhishakmantra, tantra technique, medication were applied. On examining body, mind, illness the plan to heal was given.

Cow milk, buttermilk, ghee, cowdung, cow urine used as medicine.

Similarly smoke of rice and barley was used. Holy fire was used for nurturing health. A few principles of agri medication are found in it.

Adversity, crisis and waya

At that time and age too, the farmers had to deal with natural calamities, and adversities. To protect from them they applied religious solutions

Flood / rainfall

Exorbitant rainfall caused flood, to avert it the god of rain was worshipped in prayers. All the same more research is necessary regarding it. During rigved time this problem existed. References of shloka to safeguard farms, mantras and references of fire are found.

Rats



The snakes were worshiped, pashupati Rudra, this god was their idol. Rat eater snakes and naag were guards was the belief then.

Pesticides

In Atharvaveda pesticides- insecticide are mentioned. Perhaps these insects were similar to those that do away with them

- Holy smoke of yajna was used
- Smoke of agnihotrawa used
- Cow urine was used
- The insects on crops.... Etc are mentioned in Rigveda.

CONCLUSION

The following conclusions are of the present research

1. Aryan civilization of Rigveda was agricultural centered. The way of life of Aryans was of presenting importance to agricultural knowledge and farming sacred work.
2. In Rigveda period Aryans presented forms of god to nature powers like rain, sun, air, rivers, fire, earth, they were looked upon as gods and they were glorified religiously and spiritually.
3. Farms and cow were wealth of Aryan inhabiting Rigveda era
4. Water management, farming tools and instruments and farming methods were prominent aspects of agricultural knowledge.
5. They believed that Aryan agricultural knowledge was meant of spiritual wealth besides physical wealth.

EPILOGUE

Rigveda period was important period of ancient Indian history when along with spiritual selfless contemplations, physical agricultural knowledge was also developed. Agriculture was means of livelihood and way of life. Aryans settled around seven rivers while receiving benefits from enormous lands and rich nature, they revered and considered them sacred. They looked upon farming not only to gratify their needs but profound religious significance was seen by them. Various forms of nature were placed by them as gods. Spiritual agriculture knowledge was their approach of farming in Rigveda period.

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