Farah Parveen Int. Journal of Engineering Research and Application www.ijera.com
ISSN : 2248-9622, Vol. 8, Issue 4, (Part -I) April 2018, pp.05-14

RESEARCH ARTICLE OPEN ACCESS

Ethno-Agriculture Diversity with Special Reference to Some Species of Aphrodisiac Tuberous Medicinal Plants in India

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ABSTRACT:
Nature Has Bestowed Us With A Large Numbers Of Diverse Types Of Plants, Which Occur As Wild In Different Parts Of Our Country. It Is Estimated That About 5 Lakhs Plant Species Are On Earth And Out Of Which 40% Available In Indian Sub-Continent. Mention Of About 67, 81 And 290 Plants Have Reported In Rigveda, Yajurveda And Atharveda Respectively. Among Different Herbal Plants, There Are Three Medicinal Plants I.E; Chlorophytum Ker Gawl. (Safed Musli), Asparagus L. (Satawar Or Shatawari) And Gloriosa Superba L. (Agnishikha) Belonging To Family Liliaceae, Are Consider As 'Wonder Drug' Due To Its Aphrodisiac And Sex Tonic Properties. Due To Limited Availability Of These Plants And On Other Hand Increase Demand Of Consumption, The Maximum Species Of These Tuberous Plants Are Going To Endangered Because Of The Restricted Area Of Distribution.
Key Words: Chlorophytum, Aphrodisiac, Ethno-Agriculture, Tuberous, Endangered, Pharmaceutical Products.

Date Of Submission: 31-03-2018 Date Of Acceptance 16-04-2018

I. INTRODUCTION:

In Traditional Indian System Of Medicine, Charak Samhita (II Century B.D.) And Sushrut Samhita (II Century A.D.) Have Described Properties And Uses Of 1100 And 1270 Plants Respectively. Globally, Plants Diversity Offered Biomedicine, A Broad Range Of Medicinal And Pharmaceutical Products, Herbal Remedies; Cosmetics And Perfumes Are Greatly Increased In Recent Years (Anon., 1994, Ayenshu., 1999, Salleh *Et.Al*., 1997; Kumar *Et.Al*., 2011). Today, In Developed Industrialized Countries About 25% Of Drug Prescription Comes From Natural Products. According To An Estimate Of WHO (World Health Organization), Approx 88% Of People In Developing Countries Chiefly On Traditional Medicines (Mostly Plants Extracts) For Their Primary Healthcare Needs (Canter *Et.Al*., 2005, Vines., 2004). Among Different Herbal Drugs, Tuberous Herbal Medicinal Plants Occupy Peak Position In India And Other Countries Of The World As Well. Present Paper Deals With Three Aphrodisiac, Tuberous Medicinal Plants *Chlorophytum* Ker Gawl. (Safed Musli), *Asparagus* L. (Satawar Or Shatawari) And *Gloriosa Superba* L. (Agnishikha Or Glory Lily) Belonging To Family Liliaceae, Are Consider As 'Wonder Drug' Due To Its Aphrodisiac And Sex Tonic Properties (Odhia, 2001). Although, There Are 215 Different Species Of *Chlorophytum* Ker Gawl. Have Been Reported Through Out Of The World. But Only Few Find Medicinal Relevance, Out Of Which The Prominent Ones Are *Chlorophytum Borivilianum* Santapau And Fernandes. And *Chlorophytum Tuberosum* Baker. (Tondon And Shukla., 1995, Kothari., 2004), Being Extensively Cultivated In Gujarat, Madhya Pradesh, Chhattisgarh, Uttar Pradesh In Tropical And Sub-Tropical Climate With Altitude Upto 1500 M (Nayar And Sastry, 1988, Odhia, 2001, Raghavendra *Et. Al*., 2005). *Chlorophytum Glaucum* Dalz. And *Chlorophytum Breviscapum* Dalz. Are Found In Rain Fed Areas, Along The Forest Margins, Grassy Slopes And Rocky Places Along Valleys, Mainly Collected From Maharashtra (Hara., 1966). *Chlorophytum Laxum* R. Br. Mainly Found In Deccan Region. Some Species Of *Chlorophytum* Ker Gawl. Are Cultivated For Their Ornamental Values (Bordia *Et. Al*., 1995). *Chlorophytum Comosum* (Thunb.) Jacq. Is An Another Ornamental Plant Which Is Distributed Throughout Tropical And Subtropical Regions Of India, Mainly Grow In Loamy Soil.

Asparagus L. Is Another Medicinal Plant Of Family Liliaceae (Chopra *Et. Al*., 1956). *Asparagus Recemosus* Willd. Has Been Reported From Sal And Mixed Forest Of Madhya Pradesh, Chhattisgarh, Jharkhand, Himachal Pradesh And Andhra Pradesh In India (Anonymous., 1976). *Asparagus Setaceous* (Kunth.) Jessop. And *Asparagus Densiflorus* (Kunth.) Jessop. Are Ornamental Plants Grow Throughout Of India. *Asparagus Retrofractus* L. Is Mainly Cultivated In Rajesthan And Gujarat While *Asparagus Fulcatus* L. Is Commonly Found In Shrubby Region And Generally Occur In Manipur And Other Parts Of North East India. One Of Another Medicinal Plant

Gloriosa Superba L. Is Going To Enlisted Endangered Species In District Of North Cachar Hills Of Assam And Southern Western Ghat Of Madurai District Of Tamil Nadu In India (Mukharjee., 2001, Kala. C.P., 2006).

II. METHOD AND MATERIAL:

Collection And Identification:

Different Species Of *Chlorophytum* Ker Gawl. And *Asparagus* L. Were Collected From Authenticate And Unauthenticated Regions Of Varanasi And Lucknow Of Uttar Pradesh. Plant *Chlorophytum Borivilianum* Santapau And Farnandes. Was Collected From NBRI (National Botanical Research Institute, Lucknow). Seeds Of *Asparagus Recemosus* Willd. Was Collected From CIMAP (Central Institute Of Medicinal And Aromatic Plants, Lucknow), While *Chlorophytum Laxum* R. Br., *Chlorophytum Comosum* (Thunb.) Jacq., *Asparagus Fulcatus* L., *Asparagus Retrofractus* L. *Asparagus Densiflorus* (Kunth.) Jessop, *Asparagus Setaceous* (Kunth.) Jessop Were Collected From Different Nurseries Of Lucknow And Varanasi. On The Other Hand *Gloriosa Superba* L. Was Collected From Tanda Fall Region Of Mirzapur And Duddhi In Sonebhadra (U.P.). Plants Were Identified With The Help Of "Flora Of British India" By Hooker (1872-1897).

Ethno-Agriculture Distribution:

Among The Medicinal Plants, Several Species Of *Chlorophytum* Ker Gawl. Reported In India, Each Species Has A Specific Area Of Occurrence. For Example *Chlorophytum Breviscapum* Dalz. Has Been Reported In Chota Nagpur (Jharkhand), Bihar Of Central India And Foot Hills Of North-East Himalaya In Assam, West Bengal, Orissa, Kerala And Tamil Nadu (Nilgiri Hills) (Hara., 1966; Sinha., 1996; Tomar *Et Al.*, 2009; Lal & Singh., 2012), *Chlorophytum Laxum* R. Br. Mostly Occur In Western Ghat From Karnataka Southward To Coimbatore. *Chlorophytum Tuberosum* Baker. Is Distributed Throughout Plains Of India I.E. Bihar, Orissa, West Bengal, Madhya Pradesh, Chhattisgarh And Rajasthan (Hooker., 1894; Raizada., 1976; Patel., 1968; Chada *Et.Al.*, 1980). The Natural Distribution Of *Chlorophytum Borivilianum* Santapau And Fernandes. Are Gujarat (Ahwani Dangs) And Maharashtra (Borivili, Kandheri Caves) (Kreem Abdul., 1997; Kshirsagar And Singh., 2000; Patel *Et. Al.*, 1991). The Finding Of New Species Done At Morjai Plateau In The Gaganbaw Da Taluka Of The Kolhapur District, Ebbanad Village Of Nilgiri District Of Tamil Nadu And Periya Village In Kasargod District Of Kerala (Jain & Goyal., 1995).

In India *Asparagus* L. Is Deemed An 'Exotic' Vegetable. Himachal Pradesh Is The Main *Asparagus* L. Growing State, Primarily Because Of The Large Demand From Large Metro Areas Like Delhi. Beside This, The Villages Including Chamba, Mandi And Lahaul Spiti Are Grow Dense Vegetation Of White *Asparagus* L. For Use As Local Dishes. By Providing Medicinal Care To Majority Of People On Account Of Their Cheaper Cost And No Side Effects (Kumar *Et.Al.*, 2012), Folklore Use Of It In Gwalior Forest Cycle, Madhya Pradesh; Chittor District, Andhra Pradesh; Dehradun; Amritsar; Barnawa In Bhagpat District, Uttar Pradesh Have Been Reported (Wong., 1997; Dey., 1998; Dhiman & Khanna., 2001; Malkhuri *Et. Al.*, 1998; Pandey *Et. Al*., 1981; Tomar & Singh., 2005; Tomar & Singh., 2006; Vedavathy., 1997). Ethnomedicinal Studied Of Sonebhadra District Of Utter Pradesh Bounded By Some Regions Of Bihar State, Jharkhand, Chhattisgarh And Madhya Pradesh, The Tribal Inhabitants Of These Regions Are Agaria, Baiga, Dhanga, Chero, Painika, Gond, Kharwar And Kol Depend On This Tuberous Plant For Their Daily Uses Of Medicines And Food Suppliments (Jain., 1991; Abraham., 1981).

Gloriosa Superba L. Is Found In Dense Vegetation Of Valley Of Patalkot. This Valley Is Situated On The Satpura Plataeu In The Southern Central Part Of The Madhya Pradesh In India. Most Of The People In Patalkot Belongs To 'Bharia' And 'Gond"'Tribes And Remarkable Cultivation Of Glory Lily In Ghatlinga, Bijauri, Tamia, Jaitpur, Bharia Dhana And Pandu Piparia Etc Village Of Patalkot Valley, Hoshangabad And Dhar District Of Madhya Pradesh, District Of North Cachar Hills Of Assam, Southern Western Ghat Of Madurai District Of Tamilnadu And Tanda Region Of Mirzapur In Uttar Pradesh (Jain., 2009; Bhalla *Et. Al.*, 1986; Bhattacharya *Et Al.*, 2004; Maheshwari *Et Al.*, 1986; Mudgal *Et. Al.*, 1997; Singh *Et Al.*, 2001; Roy *Et Al.*, 2009; Rai *Et Al.*, 2000; Saxena *Et Al.*, 1971; Jadhave, 2006; Verma *Et Al.*, 1993; Wagh *Et Al.*, 2010).

About 200 Km North Of The Metropolitan Mumbai, The Dang District Remains Quite Isolated And Materially Developed. The Dang Is The Abode Of Tribals I.E. Kukna, Bhil, Nayaka And Kotvariya. All The 311 Villages Of Maharashtra Totally Covered By Dense Forests Named As Mahal, Kalibal, Gulkand, Don And Pipaldahad. It Is Most Of The Backward District Among Top Of 20 In India. Dang Is A Treasure Of Forest Resources Of Medicinal Plants Like *Chlorophytum Borivilianum* Santapau And Farnandes. *Chlorophytum Tuberosum* Baker., *Gloriosa Superba* L. And Several Species Of *Asparagus* L. (Lal And Singh., 2012).

Macroscopic/ Morphological Examination:

The Details Of Macroscopic Examination Of Different Species Of *Chlorophytum* Ker Gawl, *Asparagus* L., And *Gloriosa Superba* L. Are Mention In Table 1, 2 And 3.

Table.1: Macroscopic Examination Of *Chlorophytum* Spp.

Characters	*Chlorophytum Borivilianum* Santapau & Fernandes.	*Chlorophytum Tuberosum* Baker.	*Chlorophytum Laxum* R. Br.	*Chlorophytum Comosum* (Thunb.) Jacq.
Habit	Small Perennial Herb	Small Perennial Herb	Small Perennial Herb	Small Perennial H
Plant Height	1-1.5 Feet	1-2 Feet.	Upto1 Feet.	Upto 2 Feet
Leaf	Leaves Are Green, Approx 20 Cm Long And Upto 2 Cm In Width, Spirally Imbricate At The Base Sessile, Linear, Ovate Acute At The Apex And Narrow At The Base.	Leaves Are Green, Approx 15-20 Cm Long And Upto 2 Cm In Width, Spirally Imbricate At The Base, Sessile, Linear, Ovate, Acute At The Apex And Narrow At The Base.	Leaves Are Green, Approx 20 Cm Long And Upto 2 Cm In Width, Spirally Imbricate At The Base, Sessile, Linear, Ovate, Acute At The Apex And Narrow At The Base.	Leaves Have White Variegation On The Margin, 25 Cm Long And 1.8 Cm In Width, Leaves Are Linear Lanceolate In Shape.
Flower	Flower White Bracteate, Pedicellate Perianth 6 And Arrang In 2 Whorls, 5 Nerved.	Flower White With 6 Perianth Arranged In Two Whorls.	Flower White With Perianth Arranged In 2 Whorls.	Flower White, Bracteates, Pedicellate And Perianth Arranged In Two Alternate Whorls, 5 Nerved.
Root	Roots 10-20 In Number Creamish In Colour And Tuberous At Maturity.	Roots Upto 10 In Numb Tuberous At Maturity.	Roots Tuberous And 6-1 Numbers.	Roots 15-20 In Numbers, Brown In Colour And White After Peeling At Maturity They Form Tuberous Storage Root.
Stamen	Stamens 6, As Long As Perianth And Anthers Are Yellow	Stamens 6, Little Bit Shorter As Perianth, Anthers Are Yellow	Stamens 6, As Long As Perianth And Anthers Are Yellow	Stamens 6, Slightly Shorter Than Perianth Swell At The Anther Joint, Anther Are Yellow
Style & Stigma	Style Is Longer Than Stamen, Watery White Stigma Minute	Style Is Longer T Stamen, Watery Wh Stigma Minute	Style Is Longer T Stamen, Watery Wh Stigma Minute	Style Is Longer T Stamen, Wat White, Sti Minute
Seed	Seeds Are Black And Resemble Like Onion Seed When Mature And Dry	Seeds Are Black	Seeds Are Black	Seeds Are Black

Tabel 2. Macroscopic Examination Of *Asparagus* Spp

Characters	*Asparagus Recemosus* Willd.	*Asparagus Densiflorus* (Kunth.) Jessop.	*Asparagus Setaceous* (Kunth.) Jessop.	*Asparagus Fulcatus* L.	*Asparagus Retrofractus* L.
Habit	Woody, Branched, Climbing Shrub.	Ornamental, Perennial Plant.	Cultivated, Ornamental Shrub.	Woody Small Shrub.	Woody Shrub.
Plant Height	Upto 2 M	Upto 2 Feet	1-1.5 Feet	2.5-3 M	Approx 1-2 M
Leaf	Minute, Scale-Like Which Covered The Spiny Stem Called As Cladode.	Cladode, 2-5 Per Axil, Thorn Are On Stem.	Cladode Numerous Per Axil, Finely Acicular, Thorn Are On Stem.	Leaves Are In The Form Of Cladode, Linear, Thorns Are On Stem.	Reduce To Tiny Scaly Leaves Which Arrange In Cluster Around The Thorny Stem.
Flower	White In Colour, Receme With Minute Bract And Slender Pedicel Arrange Dense In Cluster.	White And Originate In The Form Of Cluster.	White And Originate In The Form Of Cluster.	White And Originate In The Form Of Cluster.	Small, White Arrange In Dense Cluster And Are Produce In Large Number.
Stamen	Stamen 6, Tall, Minute, Bilobed And Purple Coloured Anther.	6 Stamens, Arranged In 2 Whorls, Anther Dithecous, Basifixed.	6 Stamens Are Arranged In Two Whorls.	6 Stamens Are Arranged In Two Whorls.	6 Stamens Usually With White Filament And Yellow Anther.
Style & Stigma	Style Watery Or White With Stigma.	Style Watery Or White With Stigma	Style Watery Or White With Stigma	Style Watery Or White With Stigma	Style Watery Or White With Stigma
Seed	Rounded Initially Red In Colour But Tern Black At Mature.	Rounded, Initially Green But Tern Black At Maturity.	Round And Black In Colour.	Round, Black And Hard.	Rounded Berries, Initially Green But Tern Black At Maturity.

Table 3. Macroscopic Examination Of *Gloriosa Superba* L.

Character	*Gloriosa Superba* L.
Habit	Climbing Perennial Herb.
Plant Hei	2-3 Feet
Leaf	Leaves Are Sessile, Alternate, Opposite Or Verticellate, Ovate- Lanceolate, Cordate At The Base, Upto 15cm Long, Leaf Tip Terminating Into Tendril.
Root	10-13 Roots Occur, But It Become Tuberous At Maturity.
Flower	Flower Large, Solitary, Borne On Long, Actinomorphic, Hermaphrodite, Red To Dark Orange In Colour, Perianth Segments 6, Free, Lanceolate, Long Persistent.
Stamen	Stamen 6, Hypogynous, Anther Bilobed, Extrorse, Versatile
Style Stigma	Style Deflected At Base And Projecting From The Flower More Or Less Horizontally
Seed	Seeds Are Few, Black In Colour

Ethnomedicinal Use Of Plants:

Table 4. Ethnomedicinal Properties Of *Asparagus* Spp, *Chlorophytum* Spp And *Gloriosa Superba* L. Used By Tribes With Their Respective States Of India.

S. N.	Plant Name	Place Of Occurrence	Tribes Name	Ethnomedicinal Uses
1.	*Chlorophytum Borivilianum* Santapau & Fernandes.	Vishakhapatnam (Andhra Pradesh)	Konda Dora Tribe	2 Spoons Of Tuberous Root Paste Mixed With 300 Ml Of Goat Milk Are Used To Cure Of Galactogogue.
		Achalpur, Chikhaldora, Amravati, (Maharashtra)	Kurku Tribe	Leaves Pest Used For Treatment Of Snake Bite
		Dare Kasa Hill Range, Gondia (Maharashtra)	Gond, Halba, Kawar	Roots Pastes Are Given In Fever.
		Tryambakeshwar Hill, Nasik	Baidya, Ojhas	Root Is Used Improving

		(Maharashtra)		Strength, Capable Of Promoting The Semen And Sexual Vigour
		Korapur, Odisha	Paroja, Bhumia, Gadaba, Kondha	Root Powder With Warm Milk Is Used For Strengthening The Body.
		Jhavada Villages Of Waghai Forest, Dangs (Gujarat)	Kukna	Tubers Are Boiled And Used For Treatment Of Fertility.
		Hoshangabad (Madhya Pradesh)	Gond, Baiga, Kol, Panica	Roots Are Used In Cure Of Diabetes, Spermaturia, Leucorrhoea And General Weakness.
2.	*Chlorophytum Tuberosum* Baker.	Surguja, Korea, Jashpur, Raigarh (Chhattisgarh)	Gond, Korwa, Munda, Baiga, Nagesia ,Agarias	Tubers Are Used For Treatment Of Joint Pain.
		Alirajpur (Madhya Pradesh)	Bhil, Bhilala, Pateliya	Roots Of Plant Are Used General Weakness As Tonic And Aphrodisiac, Tender Leaves Are Used As Vegetables.
		Dhar (Madhya Pradesh)	Bhil, Bhilala, Barela, Pateliya	Root Is Taken As An Aphrodisiac Agent.
		Srikakulum, Vizianagarum, Vishakhapatnum Districts (Andhra Pradesh)	Konda Dora	Leaves Pest Are Used For Treatment Of Piles
3.	*Chlorophytum Laxum* R. Br.	Singhbhum, Simdega, Latehar Districts (Jharkhand)	Kaviraj as, Vaidya s Or Bhagat	Stem Of *Asparagus* L. And Tubers Of *Chloroph ytum* Ker Gawl Crush Together Mix With Cow Ghee Used For Cure Of Arthritis.
		Satpura, Vindhyachal And Amarkantak (Madhya Pradesh)	Vaidya s And Mukhia	Tubers Are Used For Treatment Of General Weakness.
4.	*Chlorophytum Comosum* (Thunb.) Jacq.	Cultivated As Ornamental Through out India	------	Ability To Tolerate Artificial Lighting And Air Purifying Ability In Office Environment Where Electronic Pollutants Are Emitted.
5.	*Gloriosa Superba* L.	Dhar District (Madhya Pradesh)	Bhil, Bhilala, Pateliya	The Root And Flower Paste Are Used For Killing

				The Mouse And Birds In Crop Field And Root Paste Is Administrated In The Pregnancy Upto 4 Months.
		Langol, Imphal (Manipur)	Kuki, Nagas	Used As Daily Supplement
		Singhbhum, Latehar (Jharkhand)	Kaviraj as, Vaidyas, Bhagat	Tubers Are Boiled And Mixed With Mustard Oil Used For Cure Of Headache.
		Korapur District (Odisha)	Paroja, Bhatra, Gadaba ,Bhumia, Kondha	Tubers Are Used As A Tonic For Treatment Of Helminthes And Applied Against Snake Bites And Scorpion Stings.
		Jhavada Villages Of Waghai Forest (Gujarat)	Kukna	Root Extract Is Used Against Snake Bite.
		Satpura, Amarkantak (Madhya Pradesh)	Vaidyas, Mukhia	Plant Rhizome Is Used To Treatment Of Snake Bite.
6.	*Asparagus Recemosus* Willd	Surguja, Korea, Jashpur, Raigarh (Chhattisgarh)	Gond, Korwa, Munda, Baiga, Nagesia ,Agarias	Root Or Tubers Are Used For Treatment Of Sexual Diseases
		Alirajpur District (Madhya Pradesh)	Bhil, Bhilala, Pateliya	Root Powder Is Used To Increase Vigour, Strength And Lactation
		Dhar District Of Madhya Pradesh	Bhil, Bhilala, Barela, Pateliya	The Root Paste For Treatment Of Potency, Typhoid And Mix With Milk Used Tocure General Fever.
		Singhbhum, Simdega, Latehar Districts (Jharkhand)	Kaviraj as, Vaidyas Or Bhagat	Stem Of *Asparagus* L.And Tubers Of *Chlorophytum* Ker Gawl. Crush Together Mix With Cow Ghee Used For Cure Of Arthritis.
		Tryambakeshwar Hill Of Nasik (Maharashtra)	Baidya, Ojhas	Used In Leucorrhoea, Epilepsy, Gastro-Intestinal Disorder And Lactation Of Women And Cattle.
		Korapur District Of Odisha	Paroja, Bhumia, Gadaba,	Root Juice Is Used Orally In Dysentery

			Bhatra, Durua, Kondha	And Impotence.
		Hoshangabad, District (Madhya Pradesh)	Gond, Baiga, Kol, Panica	Boil Tuberous Roots Are Given To Animals And Women For Seven Days To Increase Lactation.
		Satpura, Vindhyachal, Amarkantak (Madhya Pradesh)	Vaidyas And Mukhia	Root Powder Is Used To Increase The Lactation.
7.	*Asparagus Setaceous* (Kunth.) Jessop.	Cultivated As Ornamental	--------	--------
8.	*Asparagus Densiflorus* (Kunth.) Jessop.	Cultivated As Ornamental	--------	--------
9.	*Asparagus Fulcatus* L.	Cultivated As Ornamental	--------	--------
10.	*Asparagus Retrofractus* L.	Cultivated As Ornamental	--------	--------

Fig 1. A) *Chlorophytum Borivilianum, B) C. Comosum C) C. Laxum D) C. Tuberosum*

Fig 2. A) *Asparagus Densiflorus, B) A., Fulcatus C) A. Recemosus, D) A. Retrofractus E) A. Setaceous*

Fig 3. *Gloriosa Superba*

III. RESULT & DISCUSSION:

On The Basis Of Present Investigation Few Species Of *Chlorophytum* Ker Gawl., *Asparagus* L. And One Species Of *Gloriosa* L. I.E; *Gloriosa Superba* L. From Different Region Of India That Is Jharkhand, Bihar, Uttar Pradesh, Gujarat, Madhya Pradesh, North East Himalaya In Assam, West Bengal, Kerala, Orissa, Manipur And Tamil Nadu (Nilgiri Hill) Reported The Morphological Diversity (Rai And Pandey., 1997; Pande *Et. Al*., 2004; Rai *Et Al*., 2000; Pandey *Et Al*., 2005; Khare., 2007). In Morphological Diversity, Several Species Of *Chlorophytum* Ker Gawl. And *Asparagus* L. Have Similar Size Of Flower And Quite Similar Leaf Pattern But Exhibit Important Variations In Root System, Pedicel Articulation, Anther-Filament Proportion And Surface Features Of Filaments. These Plants Are Also Mentioned As A 'Rasayana' In The Ayurveda. Rasayana Are Those Plant Drugs,

Which Promote General Wellbeing Of An Individual By Increasing Cellular Vitality And Resistance. Ayurvedic Literature Claimed Several Therapeutic Attributes In The Treatment Of Several Diseases Like Diabetes, Stress, Inflammation, Fever, Piles, Leprosy, Cancer, Antimicrobial, Blood Disorder, Urinary Contraction And Skin Related Problems (Jain., 1991; Ojha., 1987; Sharma *Et. Al*., 2000; Datta *Et. Al.*, 1998; Kala *Et. Al.*, 2004; Haroon *Et. Al.*, 2008; Haque *Et. Al*., 2011; Mishra., 2012). These Medicinal Plants Have Ability To Synthesize A Wide Variety Of Chemical Compounds (Phytochemicals) That Are Used To Treatment Of Such Diseases I.E; Saponin, Sapogenin, Colchicine, Gloriosine, Flavonoids, Starch, Phenol And Different Types Of Steroids Which Make Those Plants To Highly Medicinal Properties And Placed Them Supreme Category In Tuberous Plants (Singh *Et. Al.*, 2004; Seth *Et Al.*, 1991; Kokte *Et Al.*, 2004; Chandore *Et Al*., 2012; Gaikwad *Et Al.*, 2012). Globalization Of Agricultural Trade Under The World Trade Organization (WTO) Regime Brought With It Several Challenges And Opportunities In The Medicinal And Aromatic Plants. The Challenges Include The Price Competition, Maintenance Of Quality And Scientific Validation Of Claims For Traditional Medicines. Bio-Prospecting For Molecules Of Pharmaceutical Or Flavor / Fragrance Value From These Molecules Is Going To Be A Future Source Of Conflict Between Developing And Developed Countries. While The Developed Countries Have The Technologies And Fiscal Resources But The Developing Countries In The Tropics, Where Most Of These Medicinal Plants Are Grown, Lack Such Resources. As The First Step Of These Countries, Should Make Efforts To Develop Database Of Medicinal Plants, Indigenous Practices And Herbal Preparations In Use. These Will Not Only The Prevent Loss Of Indigenous Knowledge But Also Promote The Use Of These Plants. Documentation Further Helps Native Communities To Protect Their Intellectual Property Rights On Their Genetic Resources And Indigenous Knowledge Systems And Safeguard From Bio-Piracy (Sen *Et Al*., 2013; Jose., 2004).

IV. CONCLUSION:

Medicinal Plants Are The Blessings Of Our Traditional System Of Ayurveda. Morphological Features Like-Habit, Plant Height, Number, Size, Shape, Arrangement Of Leaves And Features Of Flower Are The Base Of Identification And Characterization Of The Plant. Although, Indian Forests In Production Of Tuberous Plants And Its Demand Is Rapidly Increasing In Indian And Foreign Market As Well (Oudhia., 2001; Kothari & Singh., 2003; Maiti & Geeta,, 2005). Only Foreign Demand Has Been Estimated As 300-700 Tons Annually (Bordia *Et. Al*., 1995). These Increasing Quantity Of Herbal Drug Our Forest Cannot Sustain And Result Is That They Are Going To Endangered Species And Enlisted In "Red Data Book Of Indian Forest" By Botanical Survey Of India And It Is Predicted That If Steps For Their Conservation Are Not Taken, The Indian Forest Lose These Valuable Plants Forever (Badola., 2002).

Acknowledgement:

The Authors Are Grateful To Head, Botany Department And Principal, Udai Pratap (Autonomous) College Varanasi, For Providing Necessary Facilities During Investigation.

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Farah Parveen"Ethno-Agriculture Diversity with Special Reference to Some Species of Aphrodisiac Tuberous Medicinal Plants In India"InternationalJournal of Engineering Research and Applications (IJERA) , vol. 8, no. 4, 2018, pp. 05-14