



Indigenous Herbal Health Traditions of Gond Community in Gadchiroli District (M. S.)

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ABSTRACT

Densities and viscosities of the binary mixtures of propionaldehyde with methanol, ethanol n-propanol and n-butanol at 298.15, 308. been determined by using experimental data. Viscosity deviations, excess molar volumes and excess free energies of activation of viscous flow have been calculated and correlated with Redlich-Kister polynomial equation.

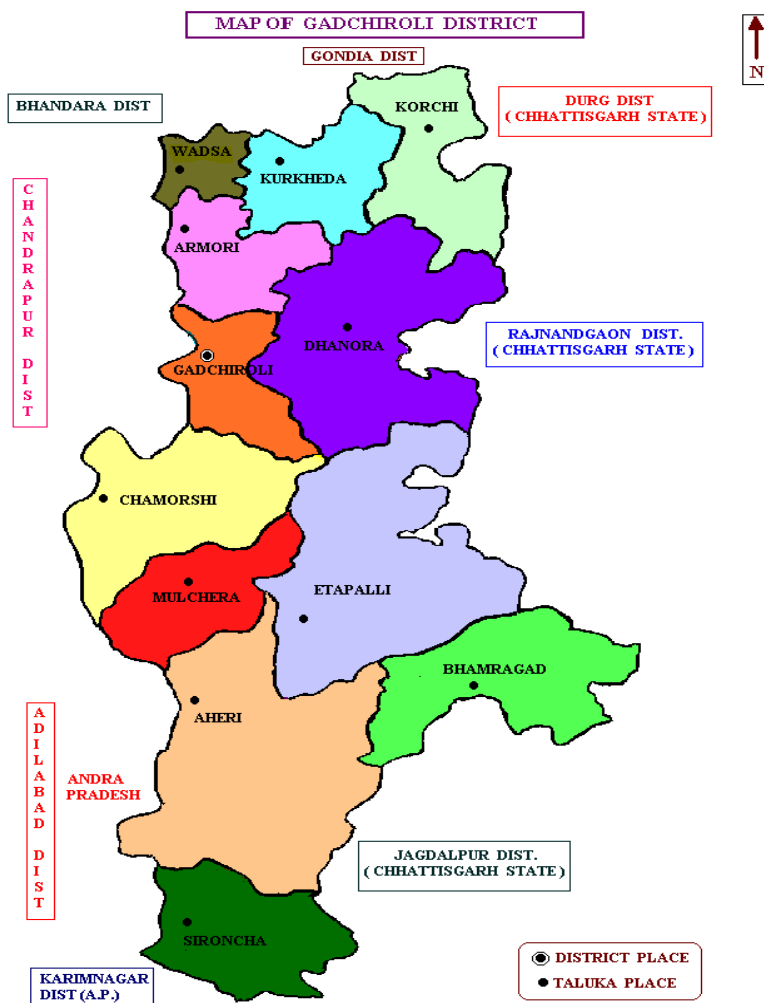
Keywords: Density, Viscosity, Viscosity deviation, Excess molar volume, Binary system, propionaldehyde.

I. INTRODUCTION

Traditional remedies are used by around 85 percent of India's rural population and 80 percent of the world's rural population to cure various diseases (Sandhya et. al., 2006). In India, the traditional systems of Unani, Ayurveda, Homeopathy, and Siddha account for over 95% of prescriptions (Satyavati et. al., 1987). However, urbanization and acculturation, tribal environment customs, and their faith and belief are all rapidly altering in a negative direction. Because of uncontrolled forest exploitation and destruction, the spread of dangerous chemicals, the introduction of alien species, and overexploitation of natural resources, a number of taxa have already vanished, and others are on the verge of doing so, even before humans were aware of their existence. It's crucial to remember this.

II. STUDY AREA

In the Deccan plateau, the Gadchiroli district of Maharashtra is located between 180 40' and 200 50' north latitude and 790 45' to 800 55' east longitude. It has a total area of 15,434 square kilometres. The states of Chhattisgarh and Andhra Pradesh encircle it. The district, which is surrounded by hills and forests, is classified as a tribal region. Gadchiroli's natural vegetation contains a diverse range of economically and medicinally important plant species. It is well-known for its bamboo and tendu leaves. One of Gadchiroli's tribe communities, the Gond, has evolved a unique herbal health system based on traditional ethnic knowledge regarding the efficacy of the bulk of these plant species.



III. MATERIALS AND METHODS

The current article is the result of a comprehensive field survey of various Gond tribal villages in Gadchiroli, including Dhanora, Aheri, Bhamrgad, Korchi, Kurkheda, Chamorshi, and Armori talukas. These communities were discovered to have deep cultural roots. A proper relationship with some of the exceptional persons known as 'vaidyas' and other members of the community was created while gathering the data. Colds, coughs, diarrhoea, rheumatism, asthma, dysmenorrhoea, fever, constipation, and other common health concerns in the Gond community were discovered during visits, and these vaidyas supply medications made from plants or their parts. Aside from vaidyas, discussions with other locals were held to acquire a better understanding of their knowledge, diagnostic methods, and treatments for the aforementioned health issues. The information was gathered.

IV. RESULTS AND DISCUSSION

Data on medicinal plants for treating various health concerns was gathered from vaidyas and local people in the Gadchiroli district's Gond population. It was discovered that medicine men used single species or combinations of species and materials to make powder, paste, aqueous extract, and decoctions of plants and their parts. Table I lists the enumerations and uses of the most regularly utilised plant species by topic.

Table-I Plants used by the Gond community of Gadchiroli district to cure their routine Health problems.

1	Name Family name Marathi name Fls &Frts Chemical Constituents: Recorded uses Local uses Claims and Administration	<i>Tinospora cordifolia</i> (wild) Miers ex Hook Menispermaceae Guluchi January – August The chemical constituents reported from this shrub belong to different classes, such as alkaloids, diterpenoid lactones, glycosides, steroids, sesquiterpenoid, phenolics, aliphatic compounds and polysaccharides. Antipyretic, Aphrodite, asthma, bone fracture, cough, diarrhoea, diphtheria, dysentery, fever, headache, jaundice, malaria, piles, skin diseases, tonic, stomach disorders. For fever Antipyretic & urinary problems, fever i) Decoction of stem (10 ml) can be given in all types at fever. ii) About 1000 gm of stem bark. Wash the stem & prepare paste. Make decoction & keep this on flame till it get converted into solid material. Prepare tablet from them of 10 gm each. Take twice daily for 7 days.
2	Name Family name Marathi name Fls &Frts Chemical Constituents Recorded uses Local uses Claims and Administration	<i>Terminalia chebula</i> Retz. Combrataceae Hirda February – May A number of glycosides have been isolated from haritaki, including the triterpenes arjunglucoside I, arjungenin, and the chebulosides I and II. Other constituents include a coumarin conjugated with gallic acids called chebulin, as well as other phenolic compounds including ellagic acid, 2,4-chebulyl- β -D-glucopyranose, chebulinic acid, gallic acid, ethyl gallate, punicalagin, terflavin A, terchebin, luteolin, and tannic acid. Chebulic acid is a phenolic acid compound isolated from the ripe fruits. Luteic acid can be isolated from the bark Bronchitis, cold colic, constipation, cough, diabetes, diarrhoea, dysuria, dysentery, eczema indigestion, menstrual complaints, pneumonia, purgative, sore throat, spleen complaint, stomach complaint, dye of hairs, Indigestion, acidity. Constipation, Diarrhoea, Dysentery. i) A decoction of 6 fruits & 4 gms of cloves should be taken daily at bed time to relieve constipation. ii) 5 gms of pulp of unripe fruits is given with honey, clove & cinnamon twice daily in diarrhoea & dysentery
3	Name Family name Marathi name Fls &Frts	<i>Woodfordia fruticosa</i> L. Lythraceae Dhayat May – June.

	<p>Chemical Constituents</p> <p>Recorded uses</p> <p>Local uses</p> <p>Claims and Administration</p>	<p>Many chemical compounds including tannins, flavonoids, anthraquinone glycosides, and polyphenols are reported to be present in <i>Woodfordia fruticosa</i> [6] . The presence of three dimeric hydrolysable tannins The presence of three dimeric hydrolysable tannins.</p> <p>Burns, cancer, cholera, cooling, cough, diarrhoea, dysentery, fever, injuries, loss of appetite in pregnancy, monorrhagia, muscle pain, nausea, night blindness in pregnancy, rheumatism, skin diseases, tonic, ulcers, drinks, dye.</p> <p>White discharge.</p> <p>Weakness, white discharge.</p> <p>i) Leaves are used as bed during sleep to release rheumatism & common cold.</p> <p>ii) Leaves are soaked in oil for overnight & then boiled, the filtrate oil used for massaging body.</p>
4	<p>Name</p> <p>Family name</p> <p>Marathi name</p> <p>Fls &Frts</p> <p>Chemical Constituents</p> <p>Recorded uses</p> <p>Local uses</p> <p>Claims and Administration</p>	<p><i>Holarrhena pubescens</i> (Buch-Ham) Well.ex.G. Don</p> <p>Apocyanaceae</p> <p>Pandhara Kuda</p> <p>February – June</p> <p>The primary phytoconstituents are coumarins, ergosterol, flavonoids, phenolic acids, resins, saponins, steroidal alkaloids, tannins, triterpenoids</p> <p>Antidote to snake bite, asthma, bronchitis, fever, cold, colic, constipation, cough, diarrhoea, fever, digestion complaints, dysentery, eczema, epilepsy, headache, jaundice, leucoderma, leprosy, malaria, menorrhagia, menstrual complaints, piles, rheumatism, skin diseases, snake bite, spleen complaints, stomachache, worms Helminthic infection.</p> <p>Dysentery & diarrhoea, Malarial fever, Jaundice.</p> <p>i)Decoction of bark about 10 ml(3-4 time a day) is an effective remedy to cure dysentery & diarrhoea.</p> <p>ii) The decoction of the stem bark mixed with black paper is given three times a day for 2 days to cure malarial fever.</p> <p>iii) Decoction of thoroughly washed root is given early in the morning in empty stomach for Jaundice once a day for 7 days.</p>
5	<p>Name</p> <p>Family name</p> <p>Marathi name</p> <p>Fls &Frts</p> <p>Chemical Constituents</p> <p>Recorded uses</p> <p>Local uses</p> <p>Claims and</p>	<p><i>Andrographis paniculata</i> (Burm. F.)wall</p> <p>Acanthaceae</p> <p>Bhunimb</p> <p>December – April</p> <p>Kalmegh contains bitter principles andrographolide, a bicyclic diterpenoid lactone and Kalmeghin (upto 2.5%). The leaves contain the maximum active principle content while in the stem it is in lesser amount.</p> <p>Chronic malaria, abdominal pain, diarrhoea, dyspepsia, fever, warm infestation, flatulence, skin diseases.</p> <p>Fever</p> <p>i)Whole plant – 50 ml decoction, given orally twice a day in malaria.</p> <p>ii)Whole plant is cut into pieces & boiled into water. About 300 ml decoction is</p>

	Administration	<p>given 2-3 time daily for fever, Cough & liver disorder.</p> <p>iii)The whole plant is washed & made into paste. Juice is extracted & filtered with a clean cotton cloth it is given are teaspeorital empty stomach early in the morning for 3 days in gastric disorder.</p> <p>iv) The pea size tablets of paste prepared from leaves dried in sunlight. 3 tablets per day are given for 7 days in malarial fever. Leaf juice is given for purifying blood.</p>
6.	Name Family name Marathi name Fls &Frts Chemical Constituents Recorded uses Local uses Claims Administration	<p><i>Justicia adathoda</i> L.</p> <p>Acanthaceae</p> <p>Adulsa</p> <p>August – March.</p> <p>Justicia adhatoda contains phytochemicals such as alkaloids, tannins, saponins, phenolics and flavonoids. The most important is vasicine, a quinazoline alkaloid. The vasicine yield of the herbage has been measured as 0.541 to 1.1% by dry weight.</p> <p>Antipyretic, antiseptic, antispasmodic, asthmatic, anthelmintic, asthma, boils, bronchitis, childbirth, cold, cough, dislocation of joints, eczema, malaria, rheumatism.</p> <p>Cough, asthma, bronchitis.</p> <p>Cough, asthma, bronchitis, fever.</p> <p>i)Decoction of leaves mixed with honey (20 gm) provides relief in cough bronchitis & asthma.</p> <p>ii)Leaves & stem is cut in to pieces, boiled under mild heat. About 200 ml decoction is given 2 -3 times daily.</p> <p>iii)Take 100 gm leaves. Take a pot with water in it. Bind the pot with cloth. Keep leaves on the cloth. Keep the pot on flame for 15 minutes. The extract juice of leaves. Take 30 ml of juice once daily for 3 days for cough.</p>
7.	Name Family name Marathi name Fls &Frts Chemical constituents: Recorded uses Local uses Claims Administration	<p><i>Vitex nigundo</i> L.</p> <p>Verbenaceae</p> <p>Nirgudi, Nirgundi.</p> <p>January – June.</p> <p>The main compounds identified are viridiflorol (26.52%), p-caryophyllene (13.20%), 4-terpineol (4.46%), linalool (2.04%), globulol (1.82%), elemol (1.48%), farnesene (1.38%) and aromadendrene (1.04%).</p> <p>Abortifacient, antispasmodic, blisters, boils, bone fracture, body ache, colic, cough, diarrhoea, diuretic, dropsy, dysentery, eczema, epilepsy, expectorant, eye complaint, fever, gout, gum trouble, headache, itching, leprosy, paralysis, pneumonia, reduce sex desire, rheumatism, skin diseases, scabies, testes disorder, toothache, tonic, wounds, fever.</p> <p>Joint pain, rheumatism.</p> <p>Rheumatism, common cold.</p> <p>i) Leaves is used as bed during sleep to release rheumatism & common cold.</p>

		ii) Leaves are soaked in oil for overnight & then boiled the filtrate oil used for massaging body.
8.	Name Family name Marathi name Fls &Frts Chemical Constituents Recorded uses Local uses Claims Administration	<i>Piper longum</i> L Piperaceae Pimpli Oct- Nov The principal monoterpene compounds in the pericarp were α -pinene (9.2%), 2- β -pinene (14.3%), δ -3-carene (21.5%) and dl-limonene (18.8%), and the primary sesquiterpenes were α -copaene (5.1%) and caryophyllene (17.2%). Asthama, bronchitis, child birth, cholera, diarrhoea, dysentery, fever, cold, cough, indigestion, paralysis, rheumatism, snake bite, spleen complaints, stomach ache. Cough Cough & cold. The powdered fruits mixed with honey are used in cough & cold twice daily for 5 days in fever.
9.	Name Family name Marathi name Fls &Frts Chemical Constituents Recorded uses Local uses Claims Administration	<i>Emblica officinalis</i> Gaertn. Fruct. Euphorbiaceae Avala February – October Higher amount of polyphenols like gallic acid, ellagic acid, different tannins, minerals, vitamins, amino acids, fixed oils, and flavonoids like rutin and quercetin. Anthelmintic, depurative, brain tonic, digestive, carminative, diuretic, contraceptive, stimulant, laxative, constipation, asthma, bronchitis, fever, dental caries, cardiopathy, astringent. Acidity, indigestion. Constipation The aqueous extract of fruit mixed with the fruits of Hirda & Behada is used in constipation.
10.	Name Family name Marathi name Fls &Frts Chemical Constituents Recorded uses Local uses	<i>Asparagus racemosus</i> wild. Liliaceae Shatavari June – October. The major bioactive constituents of Asparagus are a group of steroidal saponins. Other primary chemical constituents of Asparagus are essential oils, asparagine, arginine, tyrosine, flavonoids (kaempferol, quercetin, and rutin), resin, and tannin. Rheumatism, bleeding from nose, cough, blood in urine, diarrhoea, dysentery, galactose, tonic, ulcers on tongue, urine complaints, wounds, stomach-ache, snake bite. Dysmenorrhoea, anaemia.

	Claims Administration	Lactation, anaemia, Dysmenorrhoea, i) Root with sugar & milk used as galactagogue for ladies. ii) Dried roots in powdered form used as tonic. Tubers are washed thoroughly & paper, thin skin is peeled off and then crushed & juice is extracted. Add a little sugar & half cup of this mixture is given in empty stomach early in the morning for 15 days to increase the breast milk to feeding mother. iii) The tubers are dried & powder is prepared. 20 gm powder added with 5 gm of dried powder of <i>Withania somnifera</i> root is given daily for 1 month for anaemia. iv) The tubers are washed & paste is prepared from it. Extract juice 20 ml (before food) in empty stomach for dysmenorrhoea once daily for 1 month.
11	Name Family name Marathi name Fls & Frts Chemical Constituents Recorded uses Local uses Claims Administration	<i>Cymbopogon citratus</i> (DC) Stapf in kew Bull. Poaceae Gavati chaha August – October The major constituents of lemongrass essential oil are neral (31.5%), citral (26.1%), and geranyl acetate (2.27%). Helminthiasis, flatulence, gastric irritations, anorexia, poisonous bites, bronchitis, epilepsy, leprosy, skin diseases, cholera, neuralgia, sprains fever. Rhinitis Rhinitis 10 gm of leaves + 50 ml water + 10 gm sugar. Prepare tea. 50 ml tea is given early in the morning & before sleep daily twice for Coryza.

The ever-increasing demand for new cures for various ailments, as well as the discovery of newer sources of nourishment, has become key fields of investigation. The majority of current study in the subject of herbal treatments is focused on ethnic information; nevertheless, deforestation, semi-modernization, and transmigration have all posed a threat to traditional culture's survival. However, new avenues of ethnobotanical research have greatly expanded the scope of ethnobotany, both in terms of its theoretical contribution to understanding plant-human relationships and in terms of practical applications of tribal people's biological knowledge in agriculture, medicine, industry, and health. The ethnobotany of Korku's in Maharashtra was investigated by Kamble and Pradhan (1980). The traditional medicines of Kurukhetra are described by Lal and Yadav (1983).

The current inquiry is a step forward in these integrated efforts, which have revealed many plant species with promising therapeutic characteristics that have been traditionally employed by Gadchiroli district tribes to treat their health concerns.

The data on eleven medicinal plant species was gathered for this study, and taxonomic analysis revealed that ten of them are dicots and one is a monocot. Because there is no clinic in the villages, the Gond Community's survey shows that these people are completely reliant on natural treatments. Instead of the plants described in this study, these tribes use a wide variety of additional plant species found across the district. Their formulations play a major part in curing numerous diseases in a short amount of time because they have a vast understanding of plants used in the treatment of various health problems.

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