

RESEARCH ARTICLE

Contribution of folk medicines in rural health care in Kanpur and adjacent areas

■ Nikhil Agnihotri

SUMMARY

India has great heritage knowledge of medicinal utility of plants since ancient times. In a vast country like India folk medicines play very important and vital role in primary health care conservation in rural life. The medicinal utility of these plants is not decreased after thousands of the year. A lot of plant species occurs as self grown conditions which are known as weeds are being used by peoples for treatment of various diseases. Present study based on utility of self grown plants or weeds as house hold, folk or ethno medicine in and around the Kanpur. In the study there are 84 self grown weeds are identified and analyzed with their local names, botanical names, families, habit and habitats, conservation methods and medicinal utility against various diseases. Most of the plants are useful in more than one disease and easily available through the year. By conserving these plants we can make treatment cheaper non-reactive, safer and easily accessible to every one. It is also observed that poor or less literate persons have more knowledge than well literate and higher income group of persons. Present study highlighted new opportunities about the self grown medicinal plants relating conservation, protection, documentation and sustainable rural development.

Key Words : Self grown, Medicinal, Ethno medicinal, Folk medicine

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Throughout the history of human civilization traditional medicines have been played a very important role in healthcare since ever. Traditional system of medicine is based on technical, social, organizational and cultural collective memory of human response and it is a part of great human experiment of

survival and development. According to World Health Organization (WHO) traditional medicine as the sum total of the knowledge, skill and practice based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not used in the maintenance of health, as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness (Agnihotri *et al.*, 2007; Kamboj, 2005 and Agnihotri *et al.*, 2006).

India has great heritage of well recorded and documented of knowledge of healthcare and many ways,

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area of traditional medicine is one of them. Indian system of medicine namely Ayurveda, Unani, Siddha, as well as much other regional, local, tribal folk and ethnic system are popular thousands of the years (Sharma *et al.*, 2005). Traditional medicines practiced in these Indian systems of medicine aims to holistic health a healthy mind in a healthy body in a healthy environment. Most of the traditional medicines are plant based. A number of plants are popular as folk, ethnic or house hold remedies throughout the country. A number of herbal formulations are popular in India as house hold, ethnic or folk medicines since thousands of the years. The importance and utility of these formulations have not decreased after thousands of the year and a great number of people are using these formulations as folk remedies with high reliability. These drugs play a vital role in health care conservation of different kinds of users.

Present study based on utility of self grown plants or weeds as folk medicine in Kanpur and adjacent areas. Weeds are self grown unwanted plants which are growing out of place and time. The distribution of weeds is cosmopolitan. They are widely grown in all types of land and environment. They are widely occurs in crop fields, grass lands, besides the roads and railway lines, waterlogged and moist soils, forest patches, gardens as well as old walls.

Study area:

Kanpur is well known metropolitan city of north India. Kanpur district is situated in central region of Uttar Pradesh. It is situated between 25° 26' N and 26° 58' N longitude and 79° 31' and 80° 34' E latitude. The district is bounded by Hardoi on the north, Unnao and Fatehpur District on the east, Hamirpur district on the south and Kannauj and Ramabai Nagar districts on the west.

Ganga, Esan, Pandu, Sengur, Noon, Atak are main rivers of Kanpur. About 40 per cent population depends upon forming and wheat, rice and vegetables are major crops of Kanpur. The district lies on a plain, varied only by a few gentle undulation and slopes, sometimes abrupt, which lead down to the river valleys. The recorded elevation is between 130-150 Mt. above sea level. 66 villages and 32 city areas are included in this study.

MATERIAL AND METHODS

A field survey was conducted to study the medicinal utility of self grown plants or weeds as folk, ethnic or house hold remedies in Kanpur and adjacent areas. The

survey was conducted repeatedly in January to December 2009 during different places and seasons. Plants specimens were collected from different localities such as forest patches, plantations, crop fields, gardens, railway lines, water logged and moist soil, grass lands user lands, near by localities of rivers and road side vegetation. Before laying hands into the field works, administrative things were worked out. Meeting with old villagers and ladies, chief of community and speaking the support from treble people such as Bhantu (Habuda), Nat, Gihar (Kanjar) Sapera and some Tharus. Informants were asked to go to the places where these plants grow or to bring the drug local inhabitants use. The information's were collected with the help of local vaidyas, hakeems, old villagers, local conversant persons, hermits, herbal cultivators and sailors etc. Each informant was shown collected plant specimen. The medicinal utility of plants, local names, botanical names, families, growing period, habit and mode of preparation of medicine were collected and documented. The medicinal properties of each plant species was accepted as valid if at least five separate informants had a similar opinion. The medicinal utility of plants was crosschecked through the available literature. Photographs of plants and herbarium specimens were deposited by research group. All 84 plants species were taxonomically identified.

RESULTS AND DISCUSSION

The study was carried during January to December 2009. During the study, 84 plant species belonging to 70 genera and 42 families were identified as of medicinal importance as the villagers as well as urban communities of the area generally used them for their primary health care needs. The study is based on qualitative and some of the quantitative data. Identified plant species are arranged in the form of Table 1 and 2. Table 1 deals botanical names, families, local names, habit and growing or occurring period of studied plants. Table 2 deals names of plants, useful plant parts and medicinal utility of plants with preparation method. 84 plant species belonging to 42 families have been recorded. Out of these 40 families belong to Angiosperms and 2 families belong to Pteridophytes. In Angiosperms 36 dicots and 4 monocot families were recorded. 70 genera have been recorded in the study out of these 72 are dicots, 10 monocots and 2 genera belong to pteridophytes. 56 annual and 28 perennial plant species were identified.

Euphorbiaceae was the dominant family with 8

Table 1 : Local name, botanical name, families, habit and occurring period of self grown plants (weeds) in Kanpur and adjacent areas

Sr.No.	Botanical name of plants	Family	Local name	Habits	Occurring period
1.	<i>Abrus precatorius</i> L.	Fabaceae	Gunja, Ghumchi	Annual herb climber	Rainy to winter season
2.	<i>Abutilon indicum</i> L. sweet	Malvaceae	Kanghi	Perennial Under shrub	Through the year
3.	<i>Acalypha indica</i> L.	Euphorbiaceae	Kuppi	Annual herb	Rainy to winter season
4.	<i>Achyranthes aspera</i> L.	Amaranthaceae	Chirchita, Latjira, Apamarg	Annual herb	Rainy to winter season
5.	<i>Adhatoda vasica</i> Nees	Acanthaceae	Adusa, Vasa	Perennial small shrub	Throughout the year
6.	<i>Adiantum capillus veneries</i> L.	Polyphodiaceae	Hansa, Hanspadi	Small herb	Throughout the year on moist and shady places
7.	<i>Ageratum conyzoides</i> L.	Asteraceae	Uchanti	Annual herb	Throughout the year
8.	<i>Allium cepa</i> L.	Liliaceae	Pyaz	Annual herb Wild or Cultivated	Throughout the year
9.	<i>Allium sativum</i> L.	Liliaceae	Lahsun	Annual herb Wild or Cultivated	Throughout the year
10.	<i>Aloe vera</i> (L.) Burm.	Liliaceae	Gheekwar, Gwarpatha	Annual herb Wild or Cultivated	Throughout the year
11.	<i>Amaranthus spinosus</i> L.	Amaranthaceae	Jangali chaulai	Annual herb Wild	Throughout the year
12.	<i>Amaranthus tricolor</i> L.	Amaranthaceae	Chaulai, Laal Saag	Annual herb	Throughout the year
13.	<i>Amorphophallus campanulatus</i> Blume ex. Decne	Aracaceae	Jimikand	Annual herb Wild or Cultivated	Throughout the year
14.	<i>Andrographis paniculata</i> Nees	Acanthaceae	Kiryat, Kalmegh	Annual herb Wild or Cultivated	Throughout the year
15.	<i>Argemone mexicana</i> L.	Papaveraceae	Satyanashi	Annual herb Wild	Throughout the year
16.	<i>Aristolochia bractolata</i> Lamk	Aristolochiaceae	Kiramari, Kiramar	Annual herb	Rainy to winter season
17.	<i>Aristolochia indica</i> L.	Aristolochiaceae	Isharmul, Ishwari	Annual herb	Throughout the year
18.	<i>Asperagus racemosus</i> Willd	Liliaceae	Satavar	Perennial climber	Throughout the year
19.	<i>Avena sativa</i> L.	Poaceae	Jai	Annual herb	Throughout the year
20.	<i>Bacopa monnieri</i> (L.) Pennell	Scrophulariaceae	Bramhi	Annual herb	Throughout the year
21.	<i>Boerhavia diffusa</i> L.	Nyctagenaceae	Bishkhapra	Annual herb	Throughout the year
22.	<i>Brassica juncia</i> Czern. & Coss.	Brassicaceae	Rai, Rayi	Annual herb	Throughout the year
23.	<i>Bryophyllum pinnatum</i>	Crassulaceae	Ajuba Jakhm-e-hayat	Annual or perennial herb	Throughout the year
24.	<i>Cajanas Cajan</i> (L.) Millsp.	Fabaceae	Arhar	Annual herb	Throughout the year
25.	<i>Calendula Officinalis</i> L.	Asteraceae	Zergul	Annual herb	Throughout the year
26.	<i>Calotropus gigantea</i> L.	Asclepiadaceae	Safed Aak	Perennial under shrub	Throughout the year
27.	<i>Calotropus procera</i> (L.) RBr.	Asclepiadaceae	Aak	Perennial under shrub	Throughout the year
28.	<i>Canabis sativa</i> L.	Canabinaceae	Ganja	Perennial under shrub	Throughout the year
29.	<i>Cantharous roseus</i> L.	Apocynaceae	Sadabahar, Baramasi	Annual or perennial herb	Throughout the year
30.	<i>Capparis dediuas</i> (Forsk.) Edgew.	Capparidaceae	Karil	Annual wild herb	Throughout the year
31.	<i>Cassia occidentalis</i> L.	Casalpinaceae		Annual herb	Rainy to winter season
32.	<i>Cassia tora</i> L.	Casalpinaceae	Chakwad	Annual herb	Rainy to winter season
33.	<i>Cassitha filiformis</i> L.	Lauraceae	Amarbel	Annual/perennial herb	Throughout the year
34.	<i>Cantellia asiatica</i> L.	Apeaceae	Mandupkarni	Annual herb	Throughout the year
35.	<i>Centratherum anthelminticum</i> (Willd.) Kuntze	Asteraceae	Banjira	Annual herb	Throughout the year
36.	<i>Chenopodium album</i> L.	Chinopodiaceae	Bathua	Annual herb	Winter to spring season
37.	<i>Cissus quadrangularis</i> L.	Vitaceae	Harjor, Hadjod	Perennial under shrub	Throughout the year
38.	<i>Cleome viscosa</i> L.	Capparidaceae	Hur hur	Annual/perennial herb	Throughout the year
39.	<i>Commelina diffusa</i> L.	Commelinaceae		Annual herb	Throughout the year

Table 1 : Contd.....

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40.	<i>Commelina nudifera</i> L.	Commelinaceae	Kankauwa	Annual herb	Throughout the year
41.	<i>Convolvulus pluricosis</i> Choisy	Convolvulaceae	Shankhahuli, Shankpushpi	Annual herb	Rainy to winter season
42.	<i>Costus speciosus</i> (Koem.Ex.Retz.)Sm.	Zingiberaceae	Keu	Annual herb	Throughout the year
43.	<i>Cuscuta reflexa</i> Roxb.	Convolvulaceae	Amarbel, Akashballi	Annual climber herb	Throughout the year
44.	<i>Cynodon dactylon</i> (L.) Pers.	Poaceae	Doobh ghaas	Perennial herb	Throughout the year
45.	<i>Datura metal</i> L.	Solanaceae	Dhatura	Perennial under shrub	Throughout the year
46.	<i>Datura Stromonium</i> L.	Solanaceae	Kala dhatura	Perennial under shrub	Throughout the year
47.	<i>Eclipta prostrata</i> Hassk.	Asteraceae	Bhangra	Annual herb	Throughout the year
48.	<i>Euphorbia antiquarum</i> L.	Euphorbiaceae	Sehund	Perennial under shrub	Throughout the year
49.	<i>Euphorbia hirta</i> L.	Euphorbiaceae	Dudhi	Annual herb	Throughout the year
50.	<i>Euphorbia tirucalli</i> L.	Euphorbiaceae	Tohar	Perennial under shrub	Throughout the year
51.	<i>Fumerica indica</i> (Hauusk.) pughley	Fumaricaceae	Pitt papda	Annual herb	Winter to spring season
52.	<i>Hemidesmus indicus</i> L. Schult	Periplocaceae	Anantmul, Chhoti dudhi	Annual herb	Throughout the year
53.	<i>Ipomea nil</i> (L.) Roth	Convolvulaceae	Kaladana	Annual climber	Rainy to winter season
54.	<i>Ipomea pestigridis</i>	Convolvulaceae	Panchpatri	Annual climber	Rainy to winter season
55.	<i>Jactropha curcus</i> Mears	Euphorbiaceae	Ratanjot	Perennial under shrub	Throughout the year
56.	<i>Jactropha gossypifolia</i> L.	Euphorbiaceae	Bhrenda	Perennial under shrub	Throughout the year
57.	<i>Lantana camara</i> L.	Verbenaceae	Ghaneri	Perennial under shrub	Throughout the year
58.	<i>Lantana indica</i> L.	Verbenaceae	Barr, Kuri	Perennial under shrub	Throughout the year
59.	<i>Launea pinnatifida</i> L.	Asteraceae	Bankahu	Annual herb	Throughout the year
60.	<i>Leucas aspera</i> L.	Lamiaceae	Drona pushpi	Annual herb	Throughout the year
61.	<i>Marsilea minuta</i> L.	Marsielaceae	Chaupatia, sunsunia	Annual herb	Throughout the year in ponds
62.	<i>Mentha arvensis</i> L.	Lamiaceae	Podina	Annual herb	Winter to spring season
63.	<i>Mimosa pudica</i> L.	Mimosaceae	Chhui mui	Annual herb	Throughout the year
64.	<i>Nicotiana tobacum</i> L.	Solanaceae	Tambaku	Annual herb wild / cultivated	Throughout the year
65.	<i>Nymphaea nouchali</i> Burm. F.	Nymphaeaceae	Bhugaula	Annual or perennial aquatic herb	Throughout the year in ponds
66.	<i>Ocimum sanctum</i> L.	Lamiaceae	Tulsi	Annual herb	Throughout the year
67.	<i>Oxalis corniculata</i> L.	Oxiladaceae	Khatti buti, Chaupatia	Annual herb	Throughout the year
68.	<i>Phyllanthus neruri</i> L.	Euphorbiaceae	Bhui amla	Annual herb	Throughout the year
69.	<i>Psoralea corylifolia</i> L.	Fabaceae	Babchi	Annual herb	Throughout the year
70.	<i>Ranunculus scelerantus</i> L.	Ranunculaceae	Jaldhania	Annual herb	Spring to rainy season
71.	<i>Ricinus communis</i> L.	Euphorbiaceae	Andi	Annual or perennial shrub	Throughout the year
72.	<i>Saccharum spontanium</i>	Poaceae	Kans	Perennial under shrub	Throughout the year
73.	<i>Sida cardifolia</i> L.	Malvaceae	Bala	Annual herb	Throughout the year
74.	<i>Solanum indicum</i> L.	Solanaceae	Badi kateli	Perennial herb	Throughout the year
75.	<i>Solanum nigrum</i> L.	Solanaceae	Mokoi	Annual herb	Throughout the year
76.	<i>Solanum xanthocarpum</i> L.	Solanaceae	Kateli	Annual herb	Throughout the year
77.	<i>Sonchus oleraceceous</i> L.	Asteraceae	Dodak	Annual herb	Throughout the year
78.	<i>Tagetes erecta</i> L.	Asteraceae	Genda	Annual herb	Throughout the year
79.	<i>Tinospora cardifolia</i> Willd.	Minispermaceae	Giloe, Amrita	Perennial climber	Throughout the year
80.	<i>Tribulus terrestris</i> L.	Zygophyllaceae	Gokhru	Annual spiny herb	Throughout the year
81.	<i>Tropa natans</i> L.	Trapaceae	Singhara	Perennial aquatic herb	Throughout the year
82.	<i>Vitex nergundo</i> L.	Verbenaceae	Nirgundi, Sambhalu	Perennial under shrub	Throughout the year
83.	<i>Withania somnifera</i> (L.) dunal	Solanaceae	Ashwagandha, Dunal	Perennial under shrub	Throughout the year
84.	<i>Ziziphus spinosa</i> Hu.	Rhamnaceae	Jharberi	Perennial under shrub	Throughout the year

species, followed by Asteraceae (7 species), Solanaceae (7 species), Liliaceae (4 species), Convovulaceae (4 species), Poaceae (4 species), Amaranthaceae (3 species), Verbanaceae (3 species), Lamiaceae (3 species) and Malvaceae, Acanthaceae, Asclopiadaceae, Capparidaceae and Caesalpinaceae represented 2 species each. Araceae, Papaveraceae, Scrophulariaceae, Nyctagenaceae, Brassicaceae, Crassulaceae, Canabinaceae, Apocynaceae, Lauraceae, Apeaceae, Chenopodiaceae, Vitaceae, Zingiberaceae, Fumaricaceae, Periplocaceae, Momosaceae, Marsilaceae, Nympheaceae, Oxiladaceae, Ranunculaceae, Trapaceae, Zygophyllaceae, Minispermaceae, Rhamnaceae were represented by single species. Solanum and Euphorbia both were dominant genera belonging to 3 species each followed by Allium, Amaranthus, Aristolochia, Calotrophs, Cassia, Comelliana, Datura, Iponea, Jatropha and Lantana 2 species each. Other genera belong to single species etc. Most of the plants occur throughout the year and are effective in more than one disease.

The curative properties of some very important plants like *Abrus precatorins* L., *Achyranthus aspera* L., *Acalypha indica* L., *Allium cepa* L., *Allium sativum* L., *Amorphophalus campanulatus* Blume ex. Dence, *Amaranthus spinous* L., *Calotrophus gigantea* L., *Cuscuta reflexia* L., *Datura stromonium* L., *Capparis dediduas* (Forsk.) Edgew., *Cassia occidentalis* L., *Hemidermus indicus* (L.), Schult, *Ipomea nil* L., *Ocimum sanctum* L., *Solanum xanthocarpum* and *Solanum indicum* L. are very effective for the treatment of respiratory system disorders. *Boerhavia diffusa* L., *Aloe vera* L., *Andrographis paniculata* (burm. F.) Nees, *Chenopodium album* L., *Eclipta prostata* L., *Amorphophalus companulatus* Blume ex. Dence, *Phyllanthus neruri* L., *Fumarica indica* (Haurusk.) Puglsey, and *Tinospora cardifolia* Willd are very effective for the treatment of various liver the spleen disorders. *Abutilon indicum* L., *Acalypha indica* L., *Allium cepa* L., *Aloe vera*, L., *Amaranthus tricolour* L., *Andrographis paniculata* (Burm. F.), Nees, *Asparagus racemosus* Willd, *Centella asiatica* L., *Cynodon dectylon* (L.) Pers, *Euphorbia hirta* L., *Phyllanthus neruri* L. are useful in diarrhea, dysentery, and other intestinal disorders. *Abutilon indicum* L., *Allium sativum* L., *Datura stromonium* L., *Euphorbia tirucalli* L., *Lantana indica* L., *Marsiela minuta* L., *Mentha arvensis* L., *Ricinus communis* L., *Sida cardifolia* L., *Tinospora cardifolia* Willd, *Tribulus*

terrestris L., *Vitex nergundo* L., *Withania somnifera* (L.) Dunal are useful in different types of arthritis (Rheumatism).

Asparagus racemosus Willd, *Avena sativa* L., *Bacopa monnnieri* L., Pennell and *Withania somnifera* (L.) dunal are used as general tonic for health, vigour, impotency and reproductive system disorders. Skin diseases are treated by *Aloe vera* L., *Calotropus procera* (L.) R.B.R., *Cassia tora* L., *Psoralia corylifolia* L., *Tinospora cardifolia* L. etc. Snakebite and Scorpion sting is treated by *Achyranthus aspera* L., *Aristolochia indica* L., *Costus speciosus* (Koem. Ex, Retz.) Sm, *Eclipta prostata* L. and *Lantana indica* etc. *Abrus precatorius* L., *Aloe vera* L., *Aristolochia bractolata* Lamk. are effective remedies of menstrual problems, while *Amaranthus spinosus* L., *Amaranthus tricolour* L., *Bryophyllum pinnatum* L. and *Centella asiatica* L. are useful in bleeding piles, wounds and sores. Dental problems are treated by *Adhatoda vasica* Nees, *Achyranthus aspera* L. and *Nicotina tobaccum* L. All types of piles are cured by *Abutilon indicum* L., *Adhatoda vasica* Nees, *Amorphophallus campanulatus* blume ex. Sence, *Andrographis paniculata* (burm f.) Nees, *Jatropha gossypifolia* L., *Mimosa pudica* L., etc. Wound sores, skin tumors and nodules are cured by *Allium cepa* L., *Aloe vera* L., *Bryophyllum pinnatum* L., *Calendula officinalis* L., *Cuscuta reflexa*, Rox. *Cynodon dictylon* (L.) Pers, *Datura metal* L., *Lantana camara* L., *Nicotina tobaccum* L., *Sida cardifolia* L. Elephantiasis is cured by *Amorphophallus campanulatus* Blume ex. Dence, *Bacopa monnieri* L. Pennell. Fever is cured by *Allium sativum* L., *Cleome viscosa* L., *Cuscuta reflexa* Roxb., *Costus speciosus* (Koem. Ex., Retz.) Sm. *Ipomia nil* (L.) Roth, *Mimosa pudica* L., *Ocimum sanctum* L., *Sida cardifolia* L., *Tinospora cardifolia* Willd and *Vitex nergundo* L., Malaria is cured by *Allium sativum* L., *Argemone mexicana* L., *Ocimum sanctum* L. and *Tinospora cordifolia* Willd.

Dental problems are treated by *Achyranthus aspera* L., *Adhatoda vasica* Nees, *Andrographis paniculata* (Burm. F.) Nees, *Euphorbia tirucalli* L. and *Nicotina tobacum* L.

Different types of cardiac system disorders are cured by *Allium sativum* L., *Boerhavia diffusa* L., *Cleome viscosse* L., *Chenopodium album* L., *Tinospora cardifolia* Willd. and *Vitex nergundo* L., *Cajanas cajan* L. and *Cantharious roseus* L. are effective in diabetes.

Table 2: Plants, useful parts and methods of utilization

Sr. No.	Name of plants	Useful part	Uses (Methods of utilization)
1.	<i>Abrus precatorius</i> L.	Leaves, roots	Decoction of leaves used for cough, cold, asthma and colic pain Root paste is used in cough, cold, Asthma, chronic bronchitis and menstrual problems
2.	<i>Abutilon indicum</i> L.	Leaves, roots, seeds	Leaf extract with butter milk is given orally to cure dysentery Decoction or paste of roots prescribed in fever, chest affection and arthritis Seed paste or leaf extract with castor oil is used to cure piles
3.	<i>Acalypha indica</i> L.	Whole plant	Decoction of whole plant is useful in cough, cold, asthma, bronchitis and pneumonia. Leaves paste with garlic prescribed in diarrhea and dysentery
4.	<i>Achyranthes aspera</i> L.	Inflorescence, roots, leaves, seeds	Inflorescence and seed, paste is applied on the wound of snake and scorpion sting Seed powder or root paste mixed with honey prescribed in cough, cold, asthma and lungs diseases Paste of roots is useful in tooth problems
5.	<i>Adhatoda vasica</i> Nees	Roots, leaves	The leaf extract has been used for the treatment of bronchitis and asthma Root powder with milk in cough, cold asthma and breathless ness Fresh Juice of leaves or root paste is effective in piles, pyorrhea and ulcer
6.	<i>Adiantum capillus – veneries</i> L.	Whole plant	Plant paste utilized for the treatment of cough, cold, asthma and bronchitis
7.	<i>Ageratum conyzoides</i> L.	Whole plant	Fresh juice is used for curing allergic rhinitis and sinusitis
8.	<i>Allium cepa</i> L.	Bulb	Paste of bulb fried with pure <i>Ghee</i> is prescribed in hysteria Fried paste of bulb with mustard oil prescribed for swelling of wounds and sores Juice of bulb with lime water used for treatment of diarrhea and cholera Fresh juice with honey is effective drug of cough and cold
9.	<i>Allium sativum</i> L.	Bulb, leaves	Cloves of bulbs fried with seasmus oil or pure <i>Ghee</i> is orally prescribed for the treatment of chronic fever, malaria, sciatica, arthritis, gout and other types of joint pains Leaves are used as poultice in rheumatism Poultice of bulb is used for the treatment of boils, abscess, phlegmous, etc Pulp of cloves is utilized in colitis, atherosclerosis, and hypercholestromiaemia
10.	<i>Aloe vera</i> L.	Leaves	Fresh juice of leaves is useful in fever, healing wounds burns, cuts and all skin diseases Leaf pulp is useful in menstrual suppression Juice is also used in dropsy, dyspepsia, burns, colic and intestinal disorders
11.	<i>Amaranthus spinosus</i> L.	Leaves, roots	Leaf paste is useful in cough, cold and respiratory system disorders Root paste or powder is effective on leucorrhoea, haemoptysis and haematomeses
12.	<i>Amaranthus tricolour</i> L.	Whole plant	Decoction of plant is applied in dysentery and hemoptysis, root paste mixed with warm water is given in vomiting. Powdered roots are effective in onychia and leucorrhoea
13.	<i>Amorphophallus campanulatus</i> Blume ex. Decne	Corm, rhizome	Cooked corm is effective for the treatment of all types of piles Juice of the corm is applied in liver disorders, and elephantiasis Powder of corm is used in cough and cold
14.	<i>Andrographis paniculata</i> (Burm.f.) Nees	Whole plant	The leaf paste or extract has been used for the treatment of dysentery, diarrhea, tonsillitis. Whole plant powder is effective in piles pyorrhea and ulcer. Plant powder or decoction is effective in jaundice, lever enlargement, and parasitic fever
15.	<i>Argemone mexicana</i> L.	Root and leaves	Root extracts with warm water is applied to cure roundworms Leaf juice is utilized as preventive medicine for malaria
16.	<i>Aristolochia bractolata</i> Lamk.	Whole plant	Whole plant is utilized to rectify menstrual disorders
17.	<i>Aristolochia indica</i> L.	Root and leaves	Root and leaves paste is applied as an antidote for snake and scorpion bite
18.	<i>Asparagus racemosus</i> Willd	Tuberous roots	Root paste or powder mixed with milk is taken for health, vigor and arthritis Root paste or powder is also effectives for the treatment of diarrhea, dysentery and impotency, reproductive and nervous system disorders
19.	<i>Avena sativa</i> L.	Straw powder, root	Oat, straw powder or root with <i>Ashwagandha</i> root powder is applied with milk in general debility and nervous system disorders

Table 2 : Contd.....

Table 2: Contd.....

20.	<i>Bacopa monnieri</i> L. Pennell	Whole plant	Whole plant juice or powder is used as brain tonic and general debility Plant juice is prescribed for the treatment of leucoderma, syphilis, dysmenorrhea and elephantiasis.
21.	<i>Boerhaavia diffusa</i> L.	Whole plants	Root decoction is given in jaundice and cardiac disorders
22.	<i>Brassica juncea</i> Czerm. and Coss.	Seeds	Poultice of seeds are used in gout, sciatica and urticaria.
23.	<i>Bryophyllum pinnatum</i> L.	Leaves	Leaves paste or poultice used in wounds and sores. Leaves paste orally prescribed in bleeding piles, blood dysentery and leucorrhoea.
24.	<i>Cajanas cajan</i> (L.) Mill sp.	Leaves	Leaves paste or powder prescribed in diabetes.
25.	<i>Calendula officinalis</i> L.	Whole plant	Plant paste utilized as poultice for wounds and tumors as well as prevents hemorrhaging.
26.	<i>Calotropus gigantea</i> L.	Flower	Flowers are given in cough cold, asthma and bronchitis.
27.	<i>Calotropus procera</i> (L.) R.B.R.	Roots and leaves	Powder root are used in gastric disorders. Left paste is effective in the treatment of skin diseases.
28.	<i>Cannabis sativa</i> L.	Stem and bark	Stem bark paste is effective in swellings and hydrocele.
29.	<i>Cantharous roseus</i> L.	Leaves	Leaves paste or powder is used in diabetes
30.	<i>Capparis dediuas</i> (Forsk.) Edgew.	Leaves, roots	Root paste or powder is useful in boils, body swelling, chronic and foul ulcers, cough and asthma.
31.	<i>Cassia occidentalis</i> L.	Leaves	Leaf paste or powder is used in cough, cold and respiratory disorders. Crushed stem is used for the treatment of dysmenorrhea and postpartum bleeding in women.
32.	<i>Cassia tora</i> L.	Leaves, seeds	Leaf extracts is applied on ringworm and eczema, seed paste also applied in skin diseases.
33.	<i>Cassitha filiformis</i> Linn.	Whole plant	
34.	<i>Centella asiatica</i> L.	Whole plant	Whole plant paste or decoction is effective in the treatment of diarrhea dysentery, jaundice, leucorrhoea and dysmenorrheal as well as brain tonic.
35.	<i>Centratherum anthelminiticum</i> (Willd.) Kuntze	Leaves and roots	Whole plant juice is effective in treatment of worm infection.
36.	<i>Chenopodium album</i> L.	Whole plant	Cooked leaves are used in seminal weakness, cardiac and liver disorders and general debility.
37.	<i>Cissus quadrangularis</i> L.	Whole plant	Powdered roots as well as stem paste are very effective in bone fracture. Fresh juice is prescribed in bone fracture as well as swelling of joints and scarcity of calcium.
38.	<i>Cleome viscosa</i> L.	Seeds	Seed powder or paste is prescribed in diarrhea, fever, worm infection and cardiac disorders.
39.	<i>Commelina diffusa</i> L.	Whole plant	Whole plant paste is orally prescribed in bone fracture.
40.	<i>Commelina nudifera</i> L.	Whole plant	Whole plant paste prescribed in diarrhea and dysentery.
41.	<i>Convolvus pluricaulis choisy</i>	Whole plant	Plant paste or powder is used as a brain tonic as well as general debility.
42.	<i>Costus speciosus</i> (Koem. Ex, Retz.) Sm.	Rhizome	Rhizome paste or powder is orally given in fever, cough, dyspepsia, worms, skin diseases and snakebite.
43.	<i>Cuscuta reflexa</i> Roxb.	Whole plant	Whole plant extract is effective in asthma, bronchitis fever and excretory system disorders. Leaf pasted applied in the form of poultices is prescribed for wounds cuts and sores.
44.	<i>Cynodon dactylon</i> (L.) pers.	Whole plant	Plant paste mixed with turmeric is applied to cure scabies, cuts, wounds and other skin infections. Plant paste and decoction is used against vomiting, diarrhea, dysentery and general debility.
45.	<i>Datura metel</i> L.	Seeds and leaves	Powdered seed mixed with warm Brassica oil is used in ear ache and extend Leaves paste mixed with turmeric is applied in the treatment of wounds and sores swellings.
46.	<i>Datura stramonium</i> L.	Leaves	Leaves powder is used in bronchitis and asthma. Poultice of leaves with rice and water is effective in rheumatic swelling of joints, painful tuberos nodes, glandular inflammation such as mumps.
47.	<i>Eclipta prostrata</i> Hassk	Whole plant	Powdered leaves or fresh plant paste used as shampoo. Roots are used in snake bite and scorpion sting. Whole plant powder or decoction is prescribed in liver and spleen disorders.
48.	<i>Euphorbia antiqurum</i> L.	Leaf	Leaves juice is used in dropsy and as nerve tonic.
49.	<i>Euphorbia hirta</i> L.	Whole plant	Whole plant paste relieves in diarrhea, dysentery, vomiting and intestinal disorders. Latex is applied on wounds, pimples corn and warts.
50.	<i>Euphorbia tirucalli</i>	Plant juice	White juice of plant is externally used in rheumatic pain and toothache.
51.	<i>Fumarica indica</i> (Haussk.) Pugsley	Whole plant	Whole plant paste or decoction used in common cough, cold and fever. Plant paste mixed with black pepper given in jaundice.
52.	<i>Hemidesmus indicus</i> (L.) Schult	Roots	Root paste used in burning sensation. Root paste or powder is used in leprosy, asthma, bronchitis and leucoderma.
53.	<i>Ipomia nil</i> (L.) Roth	Seeds	Seeds paste or powder used in rheumatic pain, fever and flatulent bronchitis.

Table 2 : Contd.....

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54.	<i>Ipomia pstigridis</i> L.	Seeds	Seeds used as purgative as well as a laxative.
55.	<i>Jatropha curcus</i> Mears	Leaves, seeds	Leaves paste used in full and foul ulcer, tumors and scabies. Oil of seeds externally used in rheumatism and paralytic affections.
56.	<i>Jatropha gossypifolia</i> L.	Roots	Decoction of roots is used in piles, root powder is prescribed in diarrhea.
57.	<i>Lantana camara</i> L.	Roots, leaves	Decoction of fresh roots is effective in diarrhea. Powdered leaves used in cuts, wounds, ulcers and swelling.
58.	<i>Lantana indica</i> L.	Leaves, whole plants	Whole plant decoction is given in rheumatism. Leaf extract is given in snake bite and scorpion sting.
59.	<i>Launea</i>	Whole plant	Plant paste externally used in body swelling and for cough and cold of children.
60.	<i>Leucas aspera</i> L.	Leaf, flowers	Leaves juice highly used as eye drop in encephelopathy. Leaves and flowers useful in colic problems and intermediate fever.
61.	<i>Marsiela minuta</i> L.	Whole plant	Whole plant powder used in insomnia and chronic gout. Whole plant powder or paste used in sperm disorders.
62.	<i>Mentha arvensis</i> L.	Leaves	Leaves paste or powder used in rheumatic problems and digestive system disorders.
63.	<i>Mimosa pudica</i> L.	Whole plant	Decoction of roots used in urinary infection. It is also effective in dysentery, fever, syphilis and piles.
64.	<i>Nicotina tobacum</i> L.	Leaves	Leaf paste is useful in skin diseases, wounds, painful tumors and back sores. Leaf powder is effective on dental problems.
65.	<i>Nymphaea nouchali</i> Burm. F.	Flower	Decoction of flowers used in heatstroke as well as skin disorders.
66.	<i>Ocimum sanctum</i> L.	Leaves	Leaf paste used for stomach and intestinal disorders. Decoction of leaves is given in fever. Leaf juice is given in malaria, dysentery and dyspepsia.
67.	<i>Oxalis corniculata</i> L.	Whole plant	Plant paste is massaged on head and body ache.
68.	<i>Phyllanthus neruri</i> L.	Whole plant	Whole plant paste or decoction is given in all problems of liver, and spleen. Decoction is effective on diseases of urinary track. Plant extract is given in diarrhea and dysentery.
69.	<i>Psoralea corylifolia</i> L.	Whole plant	Plant powder used for the treatment of leucoderma and leprosy. Plant paste externally used in rheumatic pain and skin diseases. Very small dose is used in plague.
70.	<i>Ranunculus scelerantus</i> L.	Whole plant	Whole plant paste is utilized in massage for weakness of nerves.
71.	<i>Ricinus communis</i> L.	Seeds	Seed oil externally used in rheumatic pain, gout and sciatica. Drinking of juice in water is taken to treat boils and tumors. Drinking of oil with warm milk is effective in colic disorders.
72.	<i>Saccharum spontanium</i> L.	Roots	Root powder effective in liver problems.
73.	<i>Sida cardifolia</i> L.	Whole plant	Plant powder or decoction used in general debility and fever. Root juice used for healing wounds. Plant bark powder is effective in sciatica and paralysis.
74.	<i>Solanum indicum</i> L.	Roots	Root powder used in respiratory disorders.
75.	<i>Solanum nigrum</i> L.	Whole plant	Leaf juice given in inflammation of kidney and bladder. Leaf juice given in heart diseases and spleen enlargement whole plant decoction is used in enlargement of liver and jaundice.
76.	<i>Solanum xanthocarpum</i> L.	Roots	Root paste or powder is effective on chronic bronchitis, asthma and other respiratory system disorder.
77.	<i>Sonchus oleraceous</i> L.	Whole plant	Leaf juice with alum powder used in jaundice.
78.	<i>Tagetes erecta</i>	Leaves	Leaf paste is effective to prevention of bleeding. Leaf juice is used in earache, wound and sores.
79.	<i>Tinospora cordifolia</i> Willd.	Whole plant	Decoction of Roots or stem is given in cardiac and Abdominal disorders. Root powder is used in treatment of chronic fever and malaria. Warm leaves are wrapped round fracture and painful joints.
80.	<i>Tribulus terrestris</i> L.	Fruits	Fruit powder used in rheumatism, kidney problems and sperm disorders.
81.	<i>Tropa natans</i> L.	Seeds	Seed powder used in intestinal and sperm disorders.
82.	<i>Vitex nergundo</i> L.	Roots, flowers	Roots are very effective for the treatment of chronic rheumatism, gout, lumps, as well as ortho-arthritis. Flowers are useful in diarrhea, cholera, fever and cardiac disorders.
83.	<i>Withania somnifera</i> (L.) Dunal	Roots	Root paste is used in rheumatism, painful swelling and old age problems. Dried root powder with milk is used as general tonic for health and vigor as well as brain tonic.
84.	<i>Ziziphus spinosa</i> Hu.	Roots	Root paste or powder is prescribed in insomnia.

Cuscuta reflexa roxb., *Phyllanthus neruri* L., *Solanum nigrum* L., *Tribulus terrestris* L. are utilized in kidney problems as well as excretory system disorders while *Bacopa monnieri* (L.) Pennell, *Marsiela minuta* L., *Solanum nigrum* L. and *Ziziphus spinosa* Hu are used in Insomnia. *Nymphaea nouchali* Burm. F. is effective in heatstroke.

Most of the medicinal plants included in this study are very common and growing in wild or self-growing conditions as weeds. Utility of some weeds like *Asparagus racemosus* Willd, *Allium sativum* L., *Allium cepa* L., *Aloe vera* L., *Chenopodium album* L., *Centellia asiatica* L. *Withania somnifera* (L.). Dunal, *Solanum nigrum* and *Solanum indicum* L. is used for treatment of disease and has a similar purpose in other parts of India (Agnihotri *et al.*, 2006; 2007 and 2009 and Kateva *et al.*, 2004).

It is quietly proved that as community (sometimes place) changed, knowledge about plants once considered essential might become anachronistic. Poor people such as labour community, *Sapera*, *Nut*, *Bhantu* (Habura) believe in this traditional knowledge with high reliability in comparison with literate, rich and urban people (Agnihotri *et al.*, 2006, 2007 and 2009). The study concluded that the study area is rich in medicinal plants but the traditional knowledge of limited only traditional healers (Vaidyas, Hakeems, Ojhas etc.) and elderly persons who are living in different localities. Certain ethno-medicinal information of self-grown plants or weeds are being exploited by the local communities. Present study also highlighted some new approaches about ethno-medicinal utility of weeds in Kanpur and adjacent areas. The documented information provides enough opportunities to study their actual perspectives for the treatment of various human diseases by rural

inhabitants of this area. In the era of globalization, urbanization, modernization and industrialization people are avoiding this great heritage boon of nature. Due to lack of interest among the young generation, there is possibility of loss of this heritage knowledge. Because many people think that, the utility of ethno or household remedies against disease is an old or backward tradition. Thus, proper documentation and conservation of this traditional knowledge is very important for future generation.

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