

Majors Flowers Found In the Central Region of Nepal And Identification Of Their Concealed Merits And Uses In Everyday Life

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Abstract

An aggregate of 93 species of plants belonging to 48 different families have been recorded out of which sole 62 species are used as a source of medicinal flower to treat diseases. These flowers are used traditionally for the purpose of decoration and local insecticides by the people living in the locality of central development region of Nepal. Almost all plants carry the religious value within them. Despite of most of the flowers are being used as a medicinal purposes in local level more researches are required to broaden the knowledge on the relevant field and its widespread uses of pharmaceutical purposes.

Key words: Flowering plants, Aromatic, Traditional medicines, Floriculture, Ornamental, Nepal

INTRODUCTION

Floriculture refers to the gardening of decorative plants, verdure plants, blossoming plants, cut flowers, loose flowers, corms, spores, seeds, seedlings.

Among all these, cut flowers and loose flowers are the major growing business in Nepal out of which cut flowers are basically used for decorative purposes cut along with the stem and leaves and loose flowers are basically for the religious purposes plucked without the stem for the preparation of garlands.

Most of the cut flowers that are grown in Nepal are Gladiolus, Lily, Rose, Carnation, Sunflower, Gerbera, Eucalyptus, Tuberose, Peonies, Chrysanthemum, Gypsophila, Orchid, etc. and loose flowers are Marigold, Jasmine, Dahlia, Tuberose, Pansy, Gaillardia, Petunia, Hibiscus, Zinnia, Eranthemum, Calendula, Crossandra, Carnation, Globe amaranth, Dianthus, etc.

Flowers have industrial value not only in Nepal but also in entire world. Flowers namely Roses are marketed during the February and the flower typically named Makhmali is extensively marketed during the festival Tihar which have its traditional myth of not being damaged for long period of time. Even though there are millions of flower identified in the world all of them are used for the ornamental and decorative purposes. Only few of them are considered to have other nutritional and medicinal value.

US\$ 13000 million cut flower are consumed throughout the world. Most of the flower are mported by the developed country like United States of America, United Kingdom, Japan, Austrilia, Switzerland, Netherlands, and Germany. Among the importers Germany gain the first position followed by USA, France and Britain. The world's sixth largest exporter of cut flowers is Thailand (Prasad 2005).



Day to day increasing value of choices of individual, out of all other horticulture crops, floriculture is considered as remunerative profession as it has high gross return as compared to other horticultural crops (Kaul GL 1995), (SK Datta 1999), (Misra D 2016). Nowadays number of organization are being involved to review in business prospective of floriculture in both domestic and foreign market. (Raj 2017), (Singh 2011), (Panigrahy SR 2018), (De LC and Singh DR 2016), (Geetha R 2018).

The topographical, edaphic and climatic condition of Nepal especially valley support the higher growth of flower and establishment of the floriculture enterprises. (Chhetri 1999). Higher focus on production of flower might increase the exporting ratio. Most of the floriculture gift-shops, retailers are centralized on the heart of Nepal, the capital city Kathmandu on places like Tripureshwor, Kamalpokhari, Kupandol, Chabahil, Paknajol. (Anonymous 2002). Nepal is the hot spot for production of flower. Himalayan region of Nepal is also considered as world's top 20 global biodiversity hotspots. It is estimated of about 246 species of flowering plants are only endemic to Nepal as per Shrestha and Joshi (Shrestha 1999).

Materials and methods

The learning was mainly grounded on questionnaire and personal and individual interview along with directive and non-directive and focused interview with inhabitants with the foremost objective of indulgent, categorizing and analyzing the flowers unseen uses of those flowers in local level.

Study area

The study was accompanied from March to September, 2021 in central region of Nepal. For feasibility of the data collection online survey was also conducted to make the study more accurate and precise. The collection area cover all Terai, Hilly and Himalayan Range.

Data collection

Our intact learning was grounded on the questionnaire and field visit. During the visit every locality was considered including the farm as well. Individual of all gender, caste, age groups are taken into consideration so that data collected and information grabbed will be precised and ethical. The major aim of collecting the data is to find out the major flower in the Nepal and knowing the local uses of those flower except ornamental and decorative which has been hidden in the lap of the rural traditional knowledge.

RESULT AND DISCUSSION

During the study, of around 93 species of flower are seen which falls under 48 different families. Among them most of the flowers come under Compositaceae followed by olaeceae and solanaceae and so on. As shown of graph 2. And among the uses most of them serve as the medicinal purposes treating the circulatory, neural, respiratory, urinal, and muscular problem. Besides those they are extensively used as insecticides, industrial, decorative and research purposes.



| SN. | English Name | Botanical name | Nepali name | Family | Uses |
|-----|------------------|------------------------|----------------|---------------|----------------------------|
| 1 | Goat weed | Ageratum conyzoides | Ajhahanda | Compositae | Medicinal uses |
| 2 | Pilletory | Anacylus pyrethrum | Akarkala | Compositae | Tooth ache solving |
| 3 | Strap flower | Dendrophthoe falcate | Ajeru | Loranthaceae | Medicinal ascoolong |
| 4 | Himalayan nettle | Diospyros malabrica | Allo | Ebenaceae | Medicinal: Heal sores |
| | | | | | and wounds |
| 5 | Potato vine | Solanum jasminodes | alupful | Solanaceae | Decorative purpose |
| 6 | Dhataki | Woodflorida fruiticosa | Amarpful | Lythranceae | Medicinal: Cure piles |
| | | | | | and diarrhoea |
| 7 | Edgeworthia | Edgeworthia gardneri | Araili | Thymelaeaceae | Industrial: Preparing |
| | Nepal paper bush | | | | nepali paper |
| 8 | Qween crape | Lagerstroemia | Asare pful | Lythraceae | Medicinal: Lower blood |
| | myrtle | reginae | | | sugar level |
| 9 | Field bean | Bellis perennis | Asarphi phul | Leguminosae | Medicinal: Respiratory |
| | | | | | problem, rheumatism, |
| | | | | | headache |
| 10 | Atis root | Aconitum | Atis | Ranunculaceae | Curative: Against snake |
| | | heterophyllum | | | and scorpion poisoning |
| 11 | Calanthe | Calantha masuca | Pakha phul | Orchidaceae | Decorative |
| 12 | Desmodium | Desmodium | Bhamarapful | Leguminosae | Medicinal: dispelling |
| | | microphyllum | | | phlegm |
| 13 | Prostrate yarba | Eclipta prostrate | Viringi | Compositae | Medicinal :respiratory |
| | detago | | | | and curative |
| 14 | Winter jasmine | Jasminum multiflorum | Beliphul | Oleaceae | Curative: against |
| | | | | | poisoning |
| 15 | Cobra lily | Arisaema speciosum | Bishjharne | Araceae | Medicinal: cure benign |
| | | | | | warts |
| 16 | Cud weed | Gnaphalium | Bokephul | Compositae | Aromatical uses |
| | | polycaulon | | | |
| 17 | Tree jasmine | Jasminium | Chameliphul | Oleaceae | Medicinal: nervous and |
| | | arborescens | | | digestive healing |
| 18 | Rhododendron | Rhododendron | Chinia guras | Ericaceae | Insecticides: kill bugs, |
| | | lepidotum | | | Medicinal: tracheal |
| 19 | Chinese jasmine | Jasminium officinale | Chinia chameli | Oleaceae | Medicinal: liver disease |
| 20 | Frangipani | Plumeria rubra | choyaphul | Apocynaceae | Medicinal: anti fertility, |
| | | | | | hepatoprotective |
| 21 | Angel's trumpet | Dhatura suaveolens | Dhature phul | Solanaceae | Medicinal: induce |
| | | | | | hallucination and |
| | | | | | euphoria |

 Table. 1 Major flowers visualized at central parts of the Nepal



| 22 | Pentapes | Pentapes Phoenicia | Dopehere phul | Sterculiaceae | Decorative |
|----|---------------------------------|--------------------------|-----------------|----------------|---|
| 23 | Lobelia | Lobelia pyramidalis | Eklebhir | Lobeliaceae | Aromatic |
| 24 | Caesulia | Caesulia axillaris | Galphule | Compositae | Medicinal: trat bacterial and fungal pathogen |
| 25 | Lenglengan | Leucas indica | Ghantephul | Libiatae | Medicinal: psoriasis |
| 26 | Gentiana | Gentiana cephalodes | Hansphul | Gentianaceae | Medicinal: tonic |
| 27 | China rose | Hibiscus rosasinesis | Japapuspi | Malaceae | Decorative, salads |
| 28 | Rose geranium | Pelargonium capitatum | Germanyphul | Geraniaceae | Aromatic: emollient, soothing |
| 29 | Chinese hat plant | Holmskioldia sanguine | Bhulephul | Verbenaceae | Ornamental, decorative |
| 30 | Matrush | Fimbristylis miliaceae | Jyoanejhar | Cyperaceae | Manure and fertilizer |
| 31 | Bottlebrush | Callistemon citrinus | Kalakiphul | Myrtaceae | Medicinal: dysentery, rheumatism |
| 32 | Banana shrub | Michelia fuscata | Kanak champa | Mangoliaceae | Ornamental |
| 33 | Marigold | Tagetes erecta | Kanak pushpika | Compositae | Medicinal: indigestion colic; insecticides |
| 34 | Mexican sunflower | Tithona speciosa | Kadeputali phul | Compositae | Medicinal: against malaria |
| 35 | Hairy jasmine | Jasminum multiflorum | Kundaphul | Oleaceae | Protective: against poisoining |
| 36 | Cavessi bark | Holarrhena pubescens | Kurchi | Apocynaceae | Medicinal: anemia, jaundice,epilepsy, cholera |
| 37 | Chinese jasmine | Jasminum officinale | Laharechameli | Oleaceae | Medicinal: hepatic problem |
| 38 | Poinsettia | Euphorbia pulcherrima | Lalupate | Euphorbiaceae | Medicinal: stimulate breast milk production, cause abortion |
| 39 | Red-eye or yellow milkwort | Polygala arillata | Leuchephul | Polygalaceae | Insecticides: kill larva of lepidoptera |
| 40 | Cancerillo | Asclepias curassavica | Machaphul | Asclepiadaceae | Medicinal: expectorant for pleurisy, pneumonia |
| 41 | Corn flower bachelors- buton | Centaurea cyanus | Makephul | Compositae | Medicinal: menstrual disorder and vaginal yeast infection |
| 42 | Globe amaranthus | Gomphrena globosa | Makhmaliphul | Amaranthaceae | Medicinal: relief prostate problem; food value: tea, gripe |
| 43 | Red elder-berry | Sampucus adnata | Motephul | Sambuaceae | Nutritional value: vitamin, amino acids |



| 44 | Jadwar | Delphinium | Nirbirsi | Ranunculacese | Medicinal: aconite |
|----|--------------------|------------------------|-------------|-----------------|----------------------------|
| | | dendudatam | | | poisoining relief, brain |
| | | | | | disease |
| 45 | Spiked ginger lilv | Hedvchium spicatum | Pankha phul | Zingerberaceae | Medicinal: foul breath. |
| | | · · · · | Ĩ | 2 | hiccough |
| 46 | Crotalaria | Crotalaria albida | Putaliphul | Rosaceae | Insectides: kill |
| | | | 1 | | Lepidoptera larva |
| 47 | China rose | Hibiscus rosa-sinensis | Raktapuspi | Malvaceae | Food: salads, religious |
| 48 | Kalomikta vine | Actinidia callosa | Tikuphul | Actinidiaceae | Food, Medicinal: treat |
| | | | 1 | | cancer |
| 49 | Pissabed common | Taraxacum officinale | Tuke phul | Compositaceae | Medicinal: tonsillitis, |
| | dandelion | 55 | 1 | 1 | gallstones |
| 50 | Ice plant | Mesembryauthemum | Tusare phul | Aiozoaceae | Research, ornamental |
| | 1 | crystallinum | 1 | | |
| 51 | Marigold | Tages erecta | Sayepatri | Compositae | Food: pasta, mayonnaise |
| 52 | Gladious | Gladious gandavensis | Tarbarephul | Iridaceae | Medicinal: gonorrhea, |
| | | | - | | diarrhea, colds |
| 53 | Rose | Rosa alba | Gulaf | Rosaceae | Medicinal: eye, vaginal |
| | | | | | candidiasis, laxative |
| 54 | Orchid | Dendrabium | Sungabha | Orchidaceae | Ornamental |
| | | densiflorum | - | | |
| 55 | Chrysanthemum | Chrysanthemum | Godawari | Compositae | Medicinal: lower blood |
| | | coronarium | | _ | pressure |
| 56 | Blanker flower | Gaillardia pulchella | Chunariphul | Compositae | Medicinal: gastroenteritis |
| 57 | Carnation | Dianthus chinensis | Carnation | Caryophyllaceae | Medicinal: treat cystitis, |
| | | | | | constipation |
| 58 | Gerbera | Gerbera jamesonii | Gerbera | Compositae | Ornamental |
| 59 | Jasmine | Jasminium sp. | Beli | Compositae | Medicinal: liver, |
| | | | | _ | ornamental |
| 60 | Anthurium | Anthurium andreanum | Anthurium | Araceae | Ecological use: purify |
| | | | | | indoor air |
| 61 | Poinsettia | Poinsettia | Lalupate | Euphorbiaceae | Medicinal: pain killer, to |
| | | pulcherrima | | | cause vomiting |
| 62 | Craper myrtle | Lagerstromia indica | Asare phul | Lythraceae | Medicinal: immunal |
| | | | | | system |
| 63 | Honey suckle | Linocera japonica | Juhi | Caprifoliaceae | Medicinal: depurative, |
| | | | | | febrifuge |
| 64 | Bougainvillea | Bougainvillea sp. | Kagaji phul | Nyctaginaceae | Medicianal: fertility |
| | | | | | control |
| 65 | Nyctanthus | Nyctanthus arbortitis | Parijat | Olaeceae | Dye cloth, medicinal |
| 66 | Cape jasmine | Gardenia jasmenoides | Indrakamal | Rubiaceae | Food: yellow food |



| | | | | | colorant |
|----|----------------|-----------------------|-----------------|----------------|------------------------------------|
| 67 | Orange jasmine | Murrya paniculata | Kamini | Rutaceae | Medicinal: |
| | | | | | cardiovascular disorder |
| 68 | Night jasmine | Cestrum nocturnum | Ratki rani | Solanaceae | Insecticidal Medicinal: |
| | | | | | anti-hyperlipidemic, |
| 69 | Moss rose | Portulaca sp. | Barha baje phul | Portulaceae | Medicinal: febrifuge, |
| | | | | | antiseptic, vermifuge |
| 70 | Canna | Canna indica | Sarbada phul | Cannaceae | Medicinal: treat |
| | | | | | menstrual pain |
| 71 | Silver oak | Gravillea robusta | Kangiyo phul | Portulaceae | Heating: firewood, |
| | | | | | charcoal |
| 72 | Pagoda tree | Plumerica acuminate | Choya phul | Apocynaceae | Medicinal: cure itch, |
| | | | | | purgative |
| 73 | Begonia | Begonia sp. | Begonia | Begoniaceae | Ornamental, food value |
| 74 | Sunflower | Helianthus annus | Suryamukhi | Compositae | Food: oil, margarine, |
| | | | | | salad, soaps |
| 75 | Polianthes | Polianthes tuberora | Sugandharaj | Agavaceae | Medicinal: placebo, |
| | | | | | sexual disorder, emetic |
| 76 | Ranunculus | Ranunculus ficarea | Ranankulus | Ranunculaceae | Medicinal: remedy of |
| | ~ . | | ~ · | | piles |
| 77 | Statice | Limonium sp. | Statise | Plumbaginarae | ornamental |
| 78 | Iris | Iris sp. | Iris | Iridaceae | Aromatic: perfume |
| 79 | Polyanthus | Antirrhinum sp. | Sarpagandha | Liguminorae | Medicinal: treat scurvy, tumors |
| 80 | Camellia | Primula sp. | Camellia | Primulaceae | Medicinal: vermifuge. |
| | | | | | anodye, emetic |
| 81 | Azalea | Azalea indica | Azalea | Ericaceae | Ornamental decorative |
| 82 | Narcissus | Narcissus sp. | Gunkesare | Amaryllidaceae | medicinal: cancerous |
| | | 1 | | 5 | tumors, strains, |
| | | | | | congestion |
| 83 | Magnolia | Magnonlia | Rukh kamal | Mangoliaceae | Medicinal: rheumatism, |
| | - | grandiflora | | - | malaria |
| 84 | Salvia | Salvia variagata | Salvia | Labialae | Ornamental, medicinal, |
| | | | | | food value |
| 85 | Cinceraria | Cineraria multiflora | Cineraria | Compositae | Medicinal: eye drops |
| 86 | Petunia | Petunia hybrid | Petunia | Solanacea | Ornamental |
| 87 | Calendula | Calendula officinalis | Asarfi | Compositae | Medicinal: frost bite, |
| | | | | | blood purification, |
| L | | | | | herpes, scars |
| 88 | Pansy | Viola sp. | Pansy | Violaceae | Ornamental |
| 89 | Crocus | Crocus sp. | Kesar | Iridaceae | Medicinal: insomnia, |



| | | | | | atherosclerosis, |
|----|--------------|--------------------|------------|---------------|------------------------|
| | | | | | flatulence, hemoptysis |
| 90 | Corn flower | Centaurea cyanus | Makai phul | Compositae | Medicinal: chest |
| | | | | | congestion, menstrual |
| | | | | | disorder |
| 91 | Luculia | Luculia gratissine | Gaiphul | Rubiaceae | Religious |
| 92 | Celosia | Celosia sp. | Bhalephul | Amaranthaceae | Medicinal: jaundice, |
| | | | | | inflammation, itching, |
| | | | | | diarrhea |
| 93 | Common daisy | Bellis perennis | Taraphul | Compositae | Medicinal: bruises, |
| | | | | | cutaneous wounds, |
| | | | | | rheumatism |

Uses of flowers

Most of the flower are uses for decorative purposes. All most all the flowers are used for worshipping the god and goodness. Besides these people used flowers for other unseen benefits like health benefits, for preparing scents, perfumes, against snake bites, and preparing the insecticides and food and formulated industrial components.

Graph 1: Graph showing the uses of flowers found in Nepal











CONCLUSION

Most of the flowering plants identified are used as source of traditional medicine by most of the individual living in the rural areas to treat number of diseases. Even though people are using the plants as source of traditional medicine the uses are only centralized on the local level so further research are required to identify the uses not only on the local level but also extensively for industrial level as well

CONFLICT OF INTEREST

The author affirmed no conflict of interest.

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