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Fodder Plants of Some Selected Areas of Jhelum Valley District Muzaffarabad Azad Kashmir

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Abstract: Jhelum valley is a subtropical to moist temperate region lying in the District Muzaffarabad. The present communication describes 61 species belonging to 19 families which are the source of fodder. The plants together with their local names, period of availability and other details with pertinent comments are enumerated. Results of fodder plant investigation conducted in Jhelum Valley during 2005-2006 are presented.

Key words: Fodder plants, Ethnobotany, Jhelum valley, District Muzaffarabad

INTRODUCTION

Jhelum valley is located between 34°-30 latitude and 77°-98 longitude. It is bounded in the south by Kaffer khan, In the North by Leepa valley, in the east of Qazi Nag and in the west by Domel. It has rugged topography comprising mainly steep slopes and gullies where limestone, shale and sandstone rocks are common. The climate is variable between lower and higher altitude. The valley has fairly large variety of elevation. Most of the precipitation is received in the form of snow during winter. The snowfall, which occurs in the winter, is the main source of water supply through the river Jhelum and its tributaries.

Khalid *et al.* (2006) reported Ethnobotany of medicinal plants of Morgah and Kotha Kalan areas of Potohar region of Pakistan. 68 plant species belonging to 39 families were found to be in utilization by local people of that area.

Rainer *et al.* (2006) studied plant use of the Maasai of Sekenani Valley, Maasai Mara, Kenya. In Sekenani, plants are used much less frequently for manufacturing tools and for veterinary purposes, than in more remote areas. The results of this study indicate that despite their relocation 100 years ago, the local population has an extensive knowledge of the plants in their surroundings and they ascribe uses to a large percentage of the plants found. 155 plant species were collected, identified and their Maa names and traditional uses recorded.

Ertug (2004) described wild edible plants of the Bodrum area (Mugla, Turkey). The information was collected over a two-and-a-half-year period from informants of various ages and background categories in Bodrum and the surrounding villages. Over 770 plant samples were collected and about 400 species identified. The information on each species is entered into a database. The highest percentage of useful plants was of natural or so-called wild edibles. A total of 179 species (143 natural and 36 cultivar and introduced) are recorded in the food and beverage category.

Muhammad Ejaz Ul Islam Dar (2003) carried out the Ethnobotanical exploration of Lawat and its allied areas District Muzaffarabad. His checklist consists of 52 species out of which 3 species are of 2 gymnospermic families while 49 species are of 35 angiospermic families.

Ashfaq *et al.* (2004) studied traditional and medicinal uses of some spice plants of Neelum valley District Muzaffarabad Azad Jammu and Kashmir. Sixteen plant species belonging to 12 families were dealt in the study

MATERIALS AND METHODS

This study was conducted in some selected areas of Jhelum valley District Muzaffarabad Azad Jammu and Kashmir from March to September 2005. Plant specimens were collected and preserved for identification. Data on the fodder plants was also collected along with information from the local peoples. The voucher plant specimens were deposited in the Herbarium, Department of Botany University of Azad Jammu and Kashmir. Plant specimens were compared with the specimens at the, National Agricultural Research Council (NARC) Islamabad Pakistan.

RESULTS AND DISCUSSION

Information about the plants, which were used by the animals were collected from the selected areas. The plants comprise of 61 species belonging to 19 angiospermic families (Table 1).

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Table 1: Fodder plants of Jhelum valley District Muzaffarabad

S. No.	Plant name	Family	Local name	Period of availability	Value	Comments
1	*Agrostis munroana* Aitch.	Poaceae	Brackla ghass	Aug- Sep	G	Buffalos, cows and goats
2	*Agrostis canina* Auct.	Poaceae	Beero ghass	Aug- Sep	G	Sheep, horses
3	*Apluda mutica* Linn.	Poaceae	Chit ghass	Aug- Sep	P	Buffalos, cows and goats
4	*Aristida cylindrica*	Poaceae	Chhanj	Aug- Dec	P	Non palatable
5	*Aristida depressa*	Poaceae	Lamba	Aug-Nov	P	Non palatable
6	*Brachiaria eruciformis* (J.E. Smith) Griseb.	Poaceae	Bubbar ghass	Jul-Oct	P	Sheep, goat buffalo, cow, horses
7	*Bracharia ramosa* (L)Satpf.	Poaceae	Bagnoo ghass	Jul-Oct	P	All animals
8	*Cenchrus ciliaris* Linn.	Poaceae	Damero ghass	Jul-Oct	P	All animals
9	*Colium persicum* (Perenne) Linn.	Poaceae	Loodar ghass	Jul-Sep	G	Cows buffalows
10	*Cynodon dactylon* Linn.	Poaceae	Khabbal	Aug-Dec	G	All animals
11	*Cyprus rotundus* Linn.	Cyperaceae	Muther	Jul-Dec	G	Buffalows cows
12	*Dactyloclenum aegyptium* (L) P.Beauv.	Poaceae	Mohor ghass	Aug-Dec	G	Sheep, cows, boffalows
13	*Dactylic glomarata* Linn.	Poaceae	Chhatrey ghass	Jul-Nov	G	Cows
14	*Dicanthium annulatum* (Forssk) Stapf.	Poaceae	Trakana ghass	Aug-Sep	G	Buffalos
15	*Digitaria satigera* Roth.	Poaceae	*Dicanthium faveolatum* Dell.	Pulva ghass	An	Goat, horses, sheep
16	*Echinocloea crus-galli* (L) P.Beauv.	Poaceae	Chiroo ghass	Aug-Nov	G	Horses, sheep, buffalos
17	*Eragrostis poaeoides*	Poaceae		Sep-Dec	P	Cows buffalos
18	*Heteropogon contortus* (L) P. Beauv.	Poaceae	Saryala ghass	Aug-Nov	G	Cows buffalos
19	*Poa annua* Linn.	Poaceae	Booji ghass	Aug-Sep	P	Goat, sheep
20	*Poa alpina* Linn.	Poaceae	Malli ghass	Aug-Sep	P	Sheep, horses, goat
21	*Sorghum helepense* (L) Pers.	Poaceae		Jul-Sep	P	Buffalos cows
22	*Themeda anathera* (Nees-ex-Styeud) Hook	Poaceae	Baroo ghass	Aug-Nov	P	Cows, horses, buffalos
23	*Eragrost minor* Host.	Poaceae	Charita ghass	Sep-Nov	G	Cows, buffalos
24	*Eleusine compressa* Forsk.		Drub ghass	Sep-Dec	P	Goats, sheep
25	*Digitaria Pinnata* Hochst.	Poaceae	Choteli ghass	Jul-Sep	P	All animal
26	*Triticum aestivum* Linn.	Poaceae	Kanak	Dec-Apr	P	Buffalos, sheep, goat, cows
27	*Avena sativa* Linn.	Poaceae	Chawal	Jul-Oct	G	Buffalos, sheep, goat
28	*Zea mays* Linn.	Poaceae	Mak	Jul-Nov	P	Buffalos, cows
29	*Abutilon indicum* (L) Sweet.	Malvaceae	Peeli booti	Sep-Dec	P	Goats
30	*Achyranthes aspera* Linn.	Amaranthaceae	Chandee kanda	May-Sep	P	Non palatable
31	*Amaranthus spinosus* Linn.	Amaranthaceae	Gunhar	Jul-Sep	P	All animals
32	*Amaranthus viridis* Linn.	Amaranthaceae	Gunhar	Aug-Oct	P	Cows, sheep
33	*Brassica comprestris* L.	Brassicaceae	Peeli saryan	Apr-Jul	P	Cows, boffalos
34	*Vigna aconitifolia* Jacq.	Fabaceae	Moth	Aug-Oct	G	Cows, buffalos
35	*Trigonella foenum* graeum L.	Fabaceae	Methi	Dec-Mar	P	Cattle
36	*Trifolium alexandrium* L.	Trifoliaceae	Shatal	Feb-May	P	Cattle
37	*Medicago sativa* L.		Sinji	Mar-Jul	G	Goat, sheep, buffalos
38	*Sisymbrium irio* Linn.	Brassicaceae		Dec-Feb	P	Goat
39	*Portulaca oleraceaea* L.	Portulacaceae	Kulfa	Jun-Mar	G	All animals
40	*Chenopodium album* L.	Chenopodiaceae	Bathwa	Mar-Jul	G	All animals
41	*Chenopodium murale* L.	Chenopodiaceae	Chita bathwa	Mar-Jul	G	All animals
42	*Melilotus alba* Medic.	Fabaceae	Cheengri	Mar-Aug	P	Non palatable
43	*Trianthema portulacastrum* L.	Azoaceae	Gulabi booti	Jul-Aug	P	Goat
44	*Sida acuta Burn*.F.	Malvaceae	Ratjaree	Aug-Sep	P	Goat, sheep
45	*Digera muricata* L.	Amaranthaceae	Gunyara	Aug-Sep	G	All animals
46	*Cucumis sativus* L.	Cucrbataceae	Kheera	Aug-Sep	G	All animals
47	*Comelina bengalensis* Vahl.	Commelinaceae	Bubree bel	Apr-Oct	G	All animals
48	*Capsella bursa-pestoris* (L) Medic.	Brassicaceae		Jul-Oct	G	Cows, buffalos
49	*Oxalis corniculata* Linn.	Oxalidaceae	Khatra	Apr-sep	G	All animals
50	*Micrsisymbrium flacidum* O.E.S.Nbl.Brl.	Brassicaceae	Jangli sarsoo	Aug-oct	P	Goat
51	*Launaea procumbens* Roxb.	Asteraceae	Jungle phool	Sep-Nov	P	All animals
52	*Plantago lanceolata* Linn.	Plantaginaceae	Dand jaree	Apr-Oct	G	Cows buffalos
53	*Trifolium repens* Linn.	Trifoliaceae	Shangritha	Jul-Sep	P	Horses, goats, cows
54	*Cucurbita pepo* Linn.	Cucurbitaceae	Petha	Jul-Sep	G	Leaves given to cows
55	*Citrullus vulgaris* Schrad.	Cucurbitaceae	Kakri	Jul-sep	P	Leaves given to cows
56	*Acasia nilotica* Schrad.	Mimosaceae	Kikar	Sep-Dec	G	Sheep, goat
57	*Azadirachta indica* A.Juss.	Meliaceae	Phalahi	Sep-Oct	G	Goat
58	*Dalbergia sissoo* Roxb.	Fabaceae	Tahlee	Sep-Nov	P	Goat, sheep
59	*Withinia somnifera* (L) Dunl.	Solanaceae	Asgand	Aug-Sep	P	Non palatable
60	*Zizyphus nummularia* Burnf.		Bair	Aug-Dec	P	Goat, sheep
61	*Ficus religiosa* Linn.	Moraceae	Peepal	Apr-Jun	P	Non palatable

Grazing is the usual practice for Goats, Buffaloes and cows. These domestic animals fulfill the dairy requirements of the local people. Grasses are stored from September to November after rainy season. Grasses are cut by sickle (Dratee) after drying a small bundle commonly known as (Poola) is made and spread over

ground. This dried grass is used for the fodder purposes during the severe winter season. Normally *Trifolium alexandrum*, *Agrostis canina*, *Bracharia ramosa*, *Echinochloa crus-galli*, *Poa annua*, *Themeda anathera*, *Cynodon dactylon and Heteropogon contortus are* given as fodder to the cattle.

Overgrazing and over-exploitation of plant resources have already led to a decline of the plant material available. Some plants are common in the selected areas i.e., *Brachiaria eruciformis*, *Agrostis canina*, *Cynodon dactylon*, *Poa annua*, *Amaranthus viridis* etc. while others are less common due to the factors explained above.

REFERENCES

Ashfaq, A.A., S.A. Majid and R. Asghar, 2004. Traditional and medicinal uses of some spice plants of Neelum valley District Muzaffarabad Azad Jammu and Kashmir. Sci. Int. (Lahore), 16.

Bussmann, R.W., G.G. Gilbreath, J. Solio, M. Lutura, R. Lutuluo, K. Kunguru, N. Wood and S.G. Mathenge, 2006. Plant use of the Maasai of Sekenani valley, Maasai Mara, Kenya, J. Ethnobiol. Ethnomed, 2: 2-22.

Ertug, F., 2004. Wild edible plants of the Bodrum area (Mugla, Turkey). Turk. J. Bot., 28: 161-174.

Joshi, M.C. and C.B.S.R. Sharma, 1964. Study of grasses and sedges of certain areas in Jhunjhunu District (Raj). Proc. Symp. Prob. Ind. Arid Zone. Jodhpur, pp: 394-398.

Joshi, M.C. and C.B.S.R. Sharma, 1967. Grasses of certain areas of Jhunjhnu District (Raj). Indian. For., 92: 570-575.

Khalid, S., M. Chand and M.A. Khan, 2006. Ethnobotany of medicinal plants of Morgah and Kotha Kalan areas of Potohar region of Pakistan (Oral presentation). Folk Botanical wisdom: Towards global markets, 4th proceedings. Feb. 2006.

Muhammad Ejaz Ul Islam Dar, 2003. Ethnobotanical uses of plants of Lawat District Muzaffarabad, Azad Kashmir. Asian J. Plant Sci., 2: 680-682.