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Morpho Anatomical Analysis of Some Selected Flora of District Sheikhupura, Punjab, Pakistan

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ABSTRACT*: Existing investigation was conducted to find out the effects of abiotic environmental conditions on Morphology and anatomical features of some selected flora of Sheikhupura Dis. Total 30 specimengathered that comprised of 45% herbs, 25% shrubberies and 35% trees. Morpho anatomical investigations uncovered that plants were Fresh and developing admirably in abiotic environmental conditions of Dis.Sheikhupura. No. of stomata were noted at outrageous best in abaxialleaf side while quantities of epidermis cell were more in adaxial leaf sides. Various Shapes of epidermal cells, and stomata were recorded in different varieties. As per anatomical parameters, in both abaxial and adaxial sides, Coriandrumsativum demonstrated most elevated stomatanumber while Bougainvillea glabra displayed least in number. Out of these 16 plant families, Amaranthaceae, Fabacaeae, Brassicaceae, Moraceae, Astraceae, and Rutaceae were dynamic with 3 species. Following investigation uncovered that vegetation of District Sheikhupura is composed by its condition, soil, wind, precipitation proportion, atmosphere and water.*

Key words: *Morpho-anatomical, analysis, families, stomatal index, abaxial, adaxial*

INTRODUCTION

Plants are the precarious group of living creatures on the planet. They are essential for different groups of living Organisms. Having spread all around the world, plants have various distinctive structures as a result of living conditions, inherited structures, and phylogenetic

properties (Akkemik, 2011). The investigation of plant science suggests sensible research of plant structures. To be particular, the term plant science evades to a branch of science that game plans with plants and separates sorts of life, characteristics, and biochemical systems of plants. This definition requires an aggregate discernment of the thoughts of "plantal" and "coherent research". It is difficult to describe and clear up what a plant is. They have such an extensive number of sorts, sizes, and assortments that even a fundamental definition yields various exceptional conditions (Mauseth, 2012; Taiz and Zeiger, 2008; Sarıbaş, 2008). So also as all the others living on the planet, plants are moreover requested in light of their associations and resemblance (Akkemik, 2011).

The branch of science that groups the living animals as demonstrated by their inherited, morphological, or diverse traits is designated "logical arrangement". It was gotten from blend of the Greek words "taksis" (affiliation) and namos (law) were insinuating "law of affiliation". Early on requested examinations made portrayals in perspective of morphological and genetic properties, degrees of relationship, and phylogeny.

Consider examinations in botanic world constitute an introduction to accumulate information in association with the grouping of reasonableness, and sort this information inside itself, and modify it (Simpson, 2012). The branch of science pestering the outside structures and physical kinds of plants is known as "Plant Morphology" or "phytomorphology".

Generally, the key refinement between plant morphology and vegetation frameworks is that plant morphology considers plant tissues at microscopic level (URL-1, 2016). Plant morphology appears to be identical and similar sorts of plants at little scale and vast scale levels, and separates their tissues, and external structures, physical (body) and germ cells by methods for electron amplifying focal point to think about their change, improvement, and beginnings (URL-1, 2016). In a manner of speaking, plant morphology is a branch of science overseeing internal and external structures of the plants. It is laced with vegetation frameworks that audits cells and tissue structures of plant organs. The examination of morphology is basic for the definition and portrayal of taxa and their association with particular social affairs. Miniaturized scale morphological looks at on plants enable little scale level examination of tidies, leaves, tissues, seeds et cetera. The term life frameworks is all around used for plants examination by methods for light amplifying instrument or electron amplifying focal point with high cutoff of conspicuous proof (Simpson, 2012).

Leaves are among the most crucial organs of a plant, and they are ¬indicators of the condition of a tree. Their morphology and life frameworks demonstrates alterations and their reasonable ascribes reflect to some degree the prerequisites of the circumstances where the plants frequently create. (Waldhoff and parolin, 2011). Contemporary healing uses drugs got from different sources, which may be made or normal. Ordinary sources are plants, animals or mineral (Kviecinski, 2013).

Sheikhupura is District within province Punjab that is fortunate in plant diversity on account of its mutable atmosphere and sorts of lands. Weather of Punjab is checked colossal consistent variations in precipitation and hotness(Zereen, 2013). Dis. Sheikhupura is considered as rice valley. Logical grouping is a fundamental science,

such as Anatomy, Genetics Cytology, Morphology,Molecular science and Chemistry (Stuessy, 2008).

Morphological examination of specific vegetation shows fundamentally about asexual and sexual character of plants near to their habit of change. Then again, anatomical examinations of leaves depict about their general insecurities and changes.

Anatomical features of different plant organs are seen as a flexible response to regular surroundings condition of a particular creature assortments (Grigore and Toma, 2007). The arranged issues that can't be unwound absolutely through the plan build just in light of conventional morphology have been clarified starting late by methods for the use of present day requested parameters. Of these parameters, the anatomic and miniaturized scale morphological traits are as regularly as conceivable used. The use of anatomic and small scale morphological qualities for particular social occasions of plants is of criticalness to wipe out the vulnerabilities concerning the course of action (Içeli, 2011). Starting late, there have been a necessity for data to help set up morphological data remembering the true objective to comprehend the logical classification of sprouting plants in exact examinations, and to deal with requested issues that exist in various social occasions. Of these, innate, anatomic, and miniaturized scale morphological looks at are most as a rule pondered parameters (Yigit, 2016).

Objectives of the study

This study owes following objectives:

- Very first time Collection and document of flora of Sheikhupura.
- Exploring morphological diversity of enlisted flora.
- Evaluation of anatomy of collected specimens.

MATERIALS AND METHODS

Assortment of plants, for example, herbs, bushes and tree were gathered from Dis. Sheikhupura. Sheikhupura (Fig. 1) locale lies near Lahore city, subsequently weather conditions are very like that of Lahore, for example, dry, damp in rainstorm, and soil is extremely rich. The normal temperature go is 8°C to 45°C. For anatomical investigations tests of plants were gathered amid the long stretches of (December 2016) to (May 2017). Month to month based excursions were made.

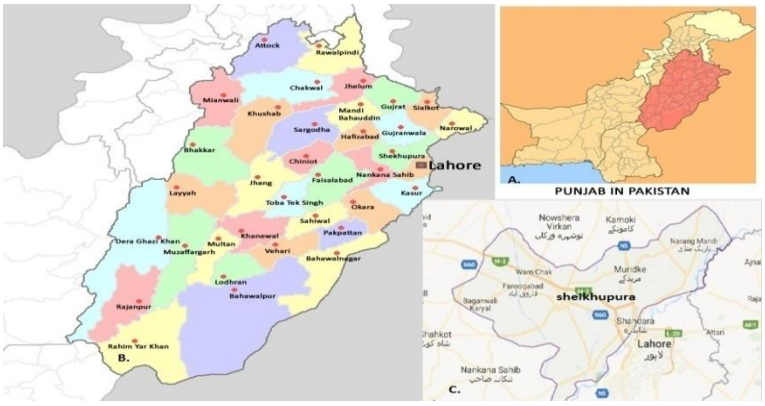

Fig 1: A. Map of Pakistan; B. Province Punjab; C. District Sheikhupura
(Modified map using https://upload.wikimedia.org/wikipedia/commons/thumb/2/28/Pakistan_Punjab.png/250px-Pakistan_Punjab.png. & WWW.googlemaps.com)

Survey of Site

For plant accumulation, a few field tours were coordinated to various areas of Sheikhupura, for example, (Ahdian, Lahoriyanwali, Mardana, Meerowal, Narang Mandi, Bareyar). Gathered areas were kept securely and after that set for the anatomical investigations. The review incorporated the enrolling and checking the ordered decent variety anatomically.

Plant Sampling

Around 30 specimen were made from various regions out of region Sheikhupura. Specimen were distinguished by [Flora of Pakistan] site (Site) and voucher number were designated as per indicated by LCWU herbarium. International Plant Name Index (site) was likewise expended obtain right plant names of plants. All watched greenery were snapped with Sony 14 megapixels camera in the region and imperative field composes were noted.

Morphological examinations

a) Vegetative characters

Vegetative characters, for example, Root, Stem (surface, tallness and shading); Leaf (edge, shading, sort, petiole, and shape) were investigated and checked.

b) Floral characters

Floral characters, for example, Inflorescence, blossom, botanical whorls characters were recorded with the assistance of amplifying glass and stereo magnifying lens for appropriate distinguishing proof.

c) Anatomical test

Plant tests were performed for anatomical leaf examinations (epidermis) & slides were set by following strategy of (Cotton, 1974) who followed (Clark, 1960). The experiment was completed with minor amended prompted by (Shaheen et al, 2010). Sections of leaves were boiled for couple of minutes in arrangement of 30% ammonia and 70% Lactic acid. Leaf unfurling figured out how to give in simplicity to epidermal rejecting.

For the exploration of abaxial surface, the leaf was situated on tile, fronting its adaxial on highest, and after that it was rubbed deliberately. Amid the rejecting it was wash away constant with 70% cool Lactic corrosive until the point that adaxial surface was segregated with mesophyll cells and just abaxial surface leftward slow on tile. The abaxial epidermal film was proceeded onward slide with a drop of lactic corrosive and inspected under light magnifying instrument. Generous leaf epidermal anatomical characters were concentrated, for example, number of stomata, epidermal cells, their size and shape, trademark cells, no and size of trichomes, stomatal record and so on.

Stomatal file was figured as following (Ogundipe *et al*, 2004):

$$\mathbf{SI = [S/S+E] \times [100]}$$

SI = Stomatal Index

E = No. of Cells of epidermis in a similar unit region.

S = No. of Stomata per unit territory and

Same methodology was rehashed for adaxial leaf surface. The settled slides were snapped under LM (Lecia DM1000 LED at 10X and 100X).

d) Data Analyses

Gathered information was dissected/ascertained in Microsoft Excel and SPSS programming for regularization.

RESULTS

Morphological findings

Samples (30) were keenly observed in lab under stereomicroscope and all morphological characteristics scientific and vernacular name, family and precise details are illustrated in Table 1.

Anatomical Findings

Anatomical measurements (Qualitative) were noted under Light Microscope. Precise details can be found in Table 2.

Anatomical measurements (Quantitative) were taken under light microscope Precise details can be found in Table 3 for Abaxial surface of leaf and Table 4 for Adaxial surface of leaf

Qualitative examination of leaf Layer

Table 2 exhibits the examination of leaf epidermal layer in light of abstract characters, for instance, condition of epidermis cell, form of stomata, and intimacy of trichome. All sample slides had stomata and epidermal cells. The perceived epidermal cells were pentagonal, undulate, polygonal, flighty, stretched, stunning and wavy. Parallel venation plants viewed delayed cell, while leaves with reticulate venation showed diverse forms. Inspected stomatal slides were cyclocytic, anomocytic, paracytic, actinocyctic and diacytic. Only 15 plants exhibited trichomes. Therewere appointed multicellular, hirsute, calvate, moniliform, uncinate, sirute, falcate, serecious and barrel molded shape.

Table 1: Morphological Characters

Sr #	Name of Plant	*Scientific name*	Family	Root	Stem	Leaves	Inflorescence	Flower	Perianth	Androecium	Gynoecium	Fruit
1.	Thin amaranth	*Amaranthus viridus* L. LCWU- 17-0698 (Amaranthaceae)	Amaranthaceae	Tap root, extended	Herbaceous, erect, Smooth, striate, green	Simple, substitute, petiolate, exstipulate	Terminal spikes	Bracteate, sessile, bracteoles two, actinomorphic, indiscriminate, green	Five sepals, combined, twisted, bristly, green, determined, below average	Stamens 3-5	Bicarpellary, syncarpous, ovary prevalent, unilocular, basal placentation; style short; disrespect;	Dry one seeded achenes.
2.	Turnip	*Brassica rapa*L. LCWU- 17-0697 (Brassicaceae)	Brassicaceae	Napiform	Reduced	Alternat, fundamental, exstipulate	Raceme	Pedicellate, ebracteate, cross-sexual, actinomorphic, hypogynous, complete and tetramerous;	Calyx: Sepals 4, polysepalous, imbricate aestivation, crummy; Corolla: Petals 4, substitute with sepals, polypetalous, cruciform corolla	Stamens 6, planned in two whorls (2+4), tetradynamous, polyandrous	Bicarpellary, syncarpous, ovary common, unilocular, parietal placentation	Siliqua or siliqula.
3.	Paper bloom	*Bougainvillea glabra*Choisy. LCWU- 17-0696 (Nyctaginaceae)	Nyctaginaceae	Tap root, extended	Herbaceous or woody, climbing;	Alternate, clear, exstipulate	Cymose, biparous	Perfect, hypogynous, actinomorphic;	Sepals 4-5, gamophyllous, petaloid, imbricate or bowed;	Stamens variable 2 to 4, filaments of unequal lengths	One carpel, unrivaled, unilocular with a lone basal ovule; style long, essential	Dry, one-seeded
4.	Mustard plant	*Brassica compestris*L. LCWU- 17-0695 (Brassicaceae)	Brassiaceae	Branched, tap root	Green, herbaceous	Sub-opposite, clear, exstipulate	Raceme;	Ebracteate, Pedicellate, actinomorphic, cross-sexual, complete and	Calyx: 4 Sepals, polysepalous, imbricate, unremarkable; Corolla: 4	Stamens 6, arranged in two whorls (2+4), polyandrous,	Syncarpous, bicarpellary, ovary common, unilocular, placentation	Siliqua or silicula.

								tetramerous, hypogynous	Petals, trade, polypetalous, cruciform corolla	tetradynamous	parietal	
5.	Bathu	*Chenopodium album*L. LCWU- 17-0694 (Amaranthaceae)	Amaranthaceae	Tap root and spread	Herbaceous and erect, Smooth, and green	Simple, exchange or converse, petiolate, exstipulate, dentate edges	Terminal	Bracteate, pedicilate, indiscriminate, actinomorphic and green	Five sepals, free, valvate, shaggy, shaded, below average	Stamens 5 or 3, imbricate	Syncarpous, bicarpellary, unrivaled ovary, unilocular, placentation basal, style filiform	Dry one seeded.
6.	Musambi	*Citrus limetta*Risso. LCWU- 17-0693 (Rutaceae)	Rutaceae	Tap root	Woody, erect, tube formed, extended, solid routinely thorny	Substitute, petiolate, compound, smooth, organs with essential oils, exstipulate, edge entire, unicostate reticulate venation	Cyme or corymb	Pedicellate, ebracteate, indiscriminate, actinomorphic, hypogynous, complete, pentamerous	Calyx: Sepals 5, free, Tubular; imbricate; Corolla: Petals 5, polypetalous, tinted, imbricate	Polyadelphous, 3 stamens	Pentacarpellary, Carpels are totally consolidated, parietal placentation, ovary pervasive	Drupaceous regular item
7.	Lemon	*Citrus limon*L. (Osbeck) LCWU- 17-0692 (Rutaceae)	Rutaceae	Tap root	Woody, barrel molded, erect, solid frequently thorny, broadened	Opposite, exstipulate, petiolate, edge entire, Simple, smooth, organs with fundamental oils, unicostate reticulate venation	Cyme or corymb	Pedicellate, cross-sexual, ebracteate, hypogynous, actinomorphic, pentamerous, complete	Calyx: Sepals 5, imbricate, free, Tubular; Corolla: Petals 5, polypetalous, imbricate, tinted	Polyadelphous, stamens 3	Carpels are totally combined, Pentacarpellary, placentation parietal, unrivaled ovary	Drupaceous

8.	Orange	*Citrus sinensis*L. (Osbeck) LCWU- 17-0691 (Rutaceae)	Rutaceae	Tap root and spread	Cylindrical, woody, solid as often as possible thorny, erect, extended	Petiolate, Simple, reverse, edge entire, exstipulate, smooth, organs and essential oils, reticulate venation	Cyme	Pedicellate, complete, actinomorphic, ebracteate, hypogynous, cross-sexual, pentamerous;	Calyx: Sepals 5, imbricate, Tubular, free; Corolla: Petals 5, polypetalous, tinted, imbricate	stamens 3, Polyadelphous	Carpels are consolidated, placentation parietal, pentacarpellary, ovary pervasive	Drupaceous.
9.	Coriander	*Coriandrums ativum*L. LCWU- 17-0690 (Apiaceae)	Apiceae	Tap, broaded ned	Erect, glabrous, green, fragile, herbaceous	Cauline and ramal, exstipulate, trade, much broke down, routinely decompound; petiolate, venation reticulate unicostate	Compound umbel incorporated by thin verdant bracts called involucres	Pedicellate, ebracteate, perfect, complete, zygomorphic, cross-sexual, pentamerous, epigynous	Calyx: Sepals 5, gamosepalous, little scales truant, adnate to the ovary, valvate, green; Corolla: Petals 5, polypetalous, epigynous, valvate, imbricate, shaded	Stamens 5, polyandrous, fiber long	Bicarpellary, syncarpous, below average, bilocular, axileplacentation, style two, characteristics of disfavor two	Schizocarpic cremocarp.
10.	Zinnia	*Dahlia pinnata*Cav. LCWU- 17-0681 (Astraceae)	Asteraceae	Tap root, changed into tubers	Erect, herbaceous, ragged, round and empty, glabrous, solid	Opposite or whorled, radical, petiolate, exstipulate, multicostate reticulate venation;	Capitulum	Bracteate, sessile, complete, Unisexual, epigynous and inconspicuous	Calyx: Pappus or missing or scale-like; Corolla: Petals 5, gamopetalous, significantly shaded, ligulate, lash formed, valvate	Minute	Bicarpellary, syncarpous, below average, unilocular with basal placentation, one anatropous ovule; style one	Absent

11.	Taali	*Delbergiasiso o*Roxb. LCWU- 17-0682 (Fabaceae)	Fabaceae	Branc hed tap root structu re, bacteri al handle s are access ible	Woody, erect, fanned, tube molded, solid	Cauline, trade, stipulate, compound, generally	Racemo se raceme	Zygomorphic, androgynous, pedicellate, perigynous, complete, pentamerous	Calyx: Sepals 5, gamosepalou s, sepaloid, imbricate aestiva¬tion; Corolla: Petals 5, polypetalous, papilionaceo us, back petal colossal, wings or alae, the base or carina; vexillary aestivation	Nine stamens, diadelphou s, strands are consolidate d to outline a sheath around the ovary;	Monocarpell ary; ovary common, unilocular, negligible placentation	Indehiscent
12.	Asthma plant	*Euphorbia hirta*L. LCWU- 17-0683 (Euphorbiace ae)	Euphorbiacea e	Tap and spread	Herbaceous, erect, extended, round and empty, level;	Opposite, direct, stipulate	Racemo se, cyathiu m	Unisexual, deficient, ordinary, actinomorphi c and hypogynous;	4 or 5 sepals or petals, imbricate aestivation;	Single stalked stamen addresses a lone male bloom	Tricarpellary , syncarpous; trilocular, unrivaled, axile placentation;	Schizocarpic
13.	Crown of throns	*Euphorbia milli*DesMoul . LCWU- 17-0684 (Euphorbiace ae)	Euphorbiacea e	Branc hed, Tap	Woody, erect, spines, desert plant like in appearance	Alternate, Simple, layered, Caducous, spines;	racemo se or cymose	Unisexual, dioecious, general, actinomorphi c, lacking, and hypogynous	4 sepals or petals, imbricate aestivation	Single stalk;	syncarpous, tricarpellary, trilocular, unrivaled, axile;	Schizocarpic .
14.	Banyan tree	*Ficusbenghal ensis*L. LCWU- 17-0685 (Moraceae)	Moraceae	Tap, signifi cant and extend ed;	Erect, hard and woody;	Simple, entire, substitute, exstipulate;	Racemo sepanic ulate or spicate	Actinomorphi c, indiscriminate , epigynous	Calyx: Sepals 4-5, valvate, decided; Corolla: Petals are pretty much nothing, imbricate in aestivation, polypetalous;	Stamens 10;	Monocarpell ary; ovary substandard, long, filiform, capitates, disgrace;	Leathery, one seeded drupe.

15.	Pipal	*Ficusreligiosa* Fross. LCWU- 17-0686 (Moraceae)		Tap, fanned, significant;	Hard, Erect, woody;	Simple, entire, exstipulate, exchange;	Paniculate, racemose;	Actinomorphic, epigynous, androgynous;	Calyx: Sepals 5, enduring, valvate; Corolla: Petals, little, polypetalous, imbricate in aestivation;	Stamens many;	Monocarpellary, long,	an achene, a drupe or nut, sometimes syconus.
16.	Daisy	*Gerbera auriantiaca*SchBip. LCWU- 17-0687 (Astraceae)	Asteraceae	Tap root	Erect, hairy, cylindrical, herbaceous, solid, radical, glabrous;	Opposite, petiolate, exstipulate, multicostate reticulate venation;	Capitulum	Bracteate, complete, Unisexual, sessile, epigynous;	Calyx:Pappus; Corolla: Petals 5, highly coloured, gamopetalous, strap-shaped, valvate, ligulate;	Minute;	Bicarpellary, inferior, unilocular, with placentation basal;	Absent,
17.	Shoe flower	*Hibiscus rosa-sinensis*L. LCWU- 17-0688 (Malvaceae)	Malvaceae	Tap, root, branched	Woody, pubescent with stellate hairs;	Alternate, petiolate, stipulate, simple, entire or palmately divided or lobed, margin serrate, apex acute, multicostate reticulate venation;	Solitary axillary;	Pedicellate, bracteate, bracteolate in the form of epicalyx, hermaphrodite complete, actinomorphic, pentamerous, hypogynous;	Calyx: Sepals five, persistent; Corolla: Petals 5, polypetalous, epipetalous, large showy, twisted;	Stamens indefinite, monadelphous, forming a staminal tube; epipetalous;	Multicarpellary usually five, syncarpous, ovary superior, multilocular with axile placentation;	capsule.
18.	Sweet pea	*Lathyrusodoratus*L. LCWU- 17-0689 (Fabaceae)	Fabaceae	Fibrous tap root, Nodules;	Herbaceous, Cylindrical, tendril climbers	Petiolate, alternate, compound of pinnate type, Stipulate, stipules modified into leaves	Racemose;	Pedicillate, bracteates, zygomorphic, regular, complete, hermaphrodite, pentamerous, hypogynous;	Calyx: 5 sepals, free or fused green; Corolla: 5 petals free, colour;	Stamens: Numerous stamens, polyandrous;	Carpel: Monocarpillary: ovary superior, placentation marginal;	Legume.

						or thrones; parallel venation;						
19.	China berry tree	*Meliaazerach* L. LCWU- 17-0699 (Meliaceae)	Meliaceae	Much branched tap root;	Woody much branched, erect, solid;	Alternate, exstipulate, pinnately compound, serrate margin;	Cymose panicles often axillary;	Pedicellate, bracteate, complete, hermaphrodite, actinomorphic, hypogynous, pentamerous;	Calyx:Sepals 4-5, gamoseplaous, imbricate aestivation, inferior;Corolla:Petals 4-5, polypetalous, imbricate aestivation, inferior;	Stamens 8-10, monoadelphous;	Carpels 2-5, syncarpous, superior, axile placentation;	Berry, capsule.
20.	Mint	*Menthapiperita*L. LCWU- 17-0700 (Lamiaceae)	Lamiaceae	Tap root;	Herbaceous, quadrangular	: Petiolate, opposite and decussate, simple, exstipulate;	Verticillaster	Pedicillate, ebracteate, zygomorphic, complete, hermaphrodite, hypogynous;	Calyx: 4 or 5 sepals, fused; Corolla: 4 or 5 petals; gamopetalous;	4 stamens, didynamous; epipetalous	Bicarpellary, syncarpous, ovary superior;	Carcerulus.
21.	Mulberry	*Moru alba*L. LCWU- 17-0701 (Moraceae)	Moraceae	Branched tap, deep;	woody, Hard, Erect;	Simple, dentate, exstipulate, alternate;	Paniculate, racemose;	Actinomorphic, epigynous, hermaphrodite;	Calyx: Sepals 5, persistent, valvate; Corolla: Petals, small, polypetalous, imbricate in aestivation;	Stamens many;	Monocarpellary, long, filiform, ovary inferior, stigma, capitates;	Leathery, one seeded drupe
22.	Tulsi	*Ocimumtenuiflorum*L. LCWU- 17-0702 (Lamiaceae)	Lamiaceae	Tap root system	Quadrangular ,Herbaceous;	Petiolate, simple, exstipulate, opposite and decussate;	Verticillaster;	Pedicillate, ebracteate, complete, zygomorphic, hypogynous,hermaphrodite;	Calyx: 4 or 5 sepals, fused; Corolla: 4 or 5 petals; gamopetalous;	4 stamens, epipetalous, didynamous;	Bicarpellary, ovary superior, syncarpous;	Carcerulus.
23.	Sour grass	*Oxalis stricta*L. LCWU- 17-0703	Oxalidaceae	Soft, adventitious	: rosettes of radical leaves;	Alternate, palmately compound, exstipulate,	Solitary;	Bracteate, bracteolate, complete, hermaphrodit	Calyx: 5 sepals, polysepalous, imbricate,	Stamens 10, fused, monadelphous;	Pentacarpellary, syncarpous, ovary	Capsule,

		(Oxalidaceae)				long petioled;		e, actinomorphic, pentamerous, hypogynous;	persistent; Corolla: 5 petals, free, short-clawed; imbricate;		superior, axile placentation;	
24.	Fever few grass	*Partheniumhysterophorus*L. LCWU- 17-0704 (Astraceae)	Asteraceae	Tap root system;	Erect, radical, cylindrical, herbaceous, solid, hairy, glabrous;	Opposite, exstipulate, multicostate reticulate venation, petiolate;	Small Capitulum	Bracteate, complete, Unisexual, epigynous	Calyx:Pappus; Corolla: Petals 5, gamopetalous, valvate, ligulate;	Minute;	:Bicarpellary, unilocular, inferior, with placentation basal;	Absent.
25.	Kachnar	*Phaneraverigata*L. LCWU- 17-0705 (Fabaceae)	Fabaceae	Tap and branched;	Erect, woody, branched;	Alternate, leaf base pulvinate, leaf is deeply emarginate – perhaps due to the fusion of two leaflets;	Racemose;	Pedicellate, bracteate, zygomorphic, complete, hermaphrodite, slightly perigynous, pentamerous;	Calyx: Sepals 5, free, imbricate aestivation; Corolla: Petals 5, ascending imbricate aestivation, posterior petal is innermost;	Stamens 10, free, monoadelphous;	Monocarpellary, ovary superior, marginal placentation	Legume.
26.	Guava	*Psidiumguajava*L. LCWU- 17-0706 (Myrtaceae)	Myrtaceae	Tap root and branched	Erect woody, branched, bark very shining;	Simple, opposite, or whorled, exstipulate, gland dotted, evergreen;	corymbose cyme, axillary;	Pedicellate, bracteates, actinomorphic, hermaphrodite, epigynous, complete;	Calyx: Sepals 4-5, polysepalous, quincuncial aestivation; Corolla: Petals 4-5, polypetalous, quincuncial aestivation;	Stamens indefinite, polyandrous rarely mondadelphous;	Carpels indefinite, syncarpous; perigynous, inferior, axile placentation;	Berry.
27.	Wild raddish	*Raphanusraphanistrum*L. LCWU- 17-0707 (Brassicaceae)	Fabaceae	Fusiform;	Erect, reduced, branched;	Alternate, leaf base pulvinate, green, simple, pointed, parallel venation;	Racemose;	Pedicellate, pentamerous, bracteate, complete, actiomorphic, slightly perigynous, hermaphrodit	Calyx: Sepals 5, free, imbricate aestivation; Corolla: Petals 5, ascending	5, monoadelphous, free;	Monocarpellary, marginal placentation, ovary superior;	Legume

								e;	imbricate aestivation, posterior petal is innermost;			
28.	Mako	*Solanumnigrum*L. LCWU- 17-0708 (Solanaceae)	Solanaceae	A branched tap root system,	Herbaceous, cylindrical, branched, solid or hollow, hairy, or glabrous,	Cauline, ramal, exstipulate, sessile, alternate, simple, entire, unicostate reticulate venation,	Solitary axillary, helicoid cyme,	Bracteate, pedicellate, complete, hermaphrodite, actinomorphic, pentamerous, hypogynous	Calyx: Sepals 5, gamosepalous, tubular, imbricate, persistent, green, inferior. Corolla: Petals 5, gamopetalous, infundibuliform, imbricate aestivation, coloured, inferior.	Stamens 5, epipetalous, polyandrous, inferior,	Bicarpellary, syncarpous, ovary superior, bilocular, axile placentation,	Berry.
29.	Wild Spinach	*Spinaceaoleracea*L. LCWU- 17-0709 (Amaranthaceae)	Amaranthaceae	Branched, Tap root;	Smooth, Herbaceous, green, erect, striate	Simple, broad, petiolate, alternate, exstipulate;	Terminal spikes;	Bracteate, bracteoles two, hermaphrodite, actinomorphic, green;	Five sepals, twisted, hairy, united, green, inferior, persistent;	Stamens 5 or 3;	Bicarpellary,ovary superior, syncarpous, unilocular, basal placentation, style short; stigma;	Dry one seeded achenes.
30.	Wheat	*Triticumaestivum*L. LCWU- 17-0710 (Poaceae)	Poaceae	Adventitious, fibrous, branched;	Underground rhizome, cylindrical, nodes and internodes, internodes hollow, herbaceous;	Alternate, simple, exstipulate, sessile, ligulate, leaf base forming tubular sheath, entire, hairy or rough, linear, parallel venation;	Spike of spikelets;	Bracteate, incomplete, sessile, hermaphrodite, irregular, hypogynous zygomorphic;	: Lodicules;	Stamens 3;	Monocarpellary, ovary superior, unilocular with single ovule, basal placentation;	Caryopsis

Table 2: Qualitative analysis

Plant Species	**Shape of epidermal cells**	**Stomata**	**Type of stomata**	**Trichome**	**Type of trichome**
Amaranthus viridus	Undulate	Present	Anomocytic	Present	Cylindrical
Brassica rapa	Curvy	Present	Actinocytic	-	-
Bougenvellia glabra	Polygonal, irregular	Present	Paracytic	Present	Multicellular
Brassica compestris	Irregular	Present	Paracytic	-	-
Chenopodium album	Polygonal	Present	Anomocytic	-	-
Citrus limetta	Pentagonal	Present	Actinocytic	-	-
Citrus limon	Polygonal, curvy	Present	Cyclocytic	-	-
Citrus sinensis	Curvy, polygonal	Present	Cyclocytic	-	-
Coriandrum sativum	Curvy	Present	Paracytic	-	-
Dahlia pinnata	Irregular	Present	Anomocytic	Present	Serecious
Delbergia sisoo	Polygonal	Present	Anisocytic	Present	Hirsute
Euphorbia hirta	Irregular, curvy	Present	Paracytic	Present	Uncinate
Euphorbia milli	Curvy, polygonal	Present	Cyclocytic	-	-
Ficus benghalensis	Irregular	Present	Paracytic	Present	Lular, clavate

Ficus religiosa	Pentagonal	Present	Actinocytic	-	-
Gerbera auriantiaca	Irregular	Present	Anomocytic	-	-
Hibiscus rosa- sinensis	Wavy, irregular	Present	Anisocytic	Present	Moniliform
Lathyrus odoratus	Elongated, irregular	Present	Diacytic	-	-
Melia azerach	Pentagonal	Present	Actinocytic	Present	Hirsute
Menthapiperita	Curvy, irregular	Present	Anisocytic	-	-
Moru alba	Polygonal	Present	Paracytic	Present	Setose
Ocimum tenuiflorum	Curvy, polygonal	Present	Cyclocytic	Present	Multicellular
Oxalis stricta	Elongated	Present	Diacytic	Present	Cylindrical
Parthenium hysterophorus	Polygonal	Present	Paracytic	-	-
Phanera verigata	Irregular	Present	Anisocytic	Present	Moniliform
Psidium guajava	Polygonal	Present	Paracytic	Present	Falcate
Raphanus raphanistrum	Irregular	Present	Cyclocytic	Present	Clavate
Solanum nigrum	Irregular, curvy	Present	Anomocytic	Present	Falcate
Spinacea oleracea	Pentagonal	Present	Actinocytic	-	-
Triticum aestivum	Elongated	Present	Diacytic	-	-

Table 3: Quantitative Analysis of Leaf Epidermis (Abaxial)

Plant specie	No of epidermal cell (av)	Epidermal cell (µm)		No of stomata (av)	No of Trichome (av)	Trichome (µm)		Stomatal (µm)		Stomatal index (%)
		Length (Mean±E)	Width (Mean±E)			Length (Mean ±E)	Width (Mean±E)	Length (Mean±E)	Width (Mean±E)	
Amaranthus viridus	76	32±6.0	20.4±2.2	33	6	47±0.57	5±0.577	1.2±0.08	0.08±0.03	30.27
Brassica rapa	84	48.9±5.2	39.5±6.8	24	-	-	-	1.4±0.26	0.6±0.15	22.22
Bougenvellia glabra	81	38.4±2.4	22.8±1.6	19	9	146±12.0	4±0.577	1.3±0.08	0.44±0.02	19.01
Brassica compestris	75	48.6±9.2	59±18.9	56	-	-	-	1.6±0.17	0.3±0.008	42.74
Chenopodium album	116	61.3±8.9	38.3±10.3	39	-	-	-	1.06±0.08	0.63±0.09	25.16
Citrus limetta	70	52±16.8	55±14.5	43	-	-	-	1.3±0.05	0.16±0.03	38.05
Citrus limon	94	29±5.5	62±16.1	41	-	-	-	1.3±0.06	0.2±0.005	31.06
Citrus sinensis	88	39.6±11.6	51±14	44	-	-	-	1.8±0.03	0.5±0.05	33.33
Coriandrum sativum	62	69±6.6	56.3±5.6	54	-	-	-	1.52±0.1	0.18±0.02	46.55
Dahlia pinnata	133	41.3±7.8	53±16.7	39	12	92±12.1	9±0.577	1.87±0.06	0.3±0.036	22.67
Delbergia sisoo	80	57±16.4	69.6±6.69	21	11	73±8.7	13.6±1.2	1.58±0.09	0.62±0.04	20.79
Euphorbia hirta	82	41.3±7.8	40.0±8.9	48	9	133±6.6	25.6±2.6	1.43±0.06	0.43±0.03	36.92
Euphorbia milli	58	53.3±1.4	48.3±2.3	24	-	-	-	0.7±0.1	0.53±0.03	29.26
Ficus benghalensis	82	53±16.7	61.3±8.9	31	14	185±21.2	12.6±0.6	2.09±0.1	0.37±0.03	27.43
Ficusreligiosa	58	48±8.6	51.6±18.7	39	-	-	-	1.55±0.08	0.13±0.02	40.20
Gerbera auriantiaca	78	59±9.07	39.6±9.2	40	-	-	-	1.51±0.04	0.5± 0.03	33.89
Hibiscus rosa-sinensis	73	52±16.8	67±16.5	21	12	177±21.2	41.3±0.88	1.76±0.07	0.41±0.05	22.34
Lathyrus odoratus	62	50±16.8	49±14.7	29	-	-	-	1.44±0.12	0.42±0.04	31.86

Melia azerach	98	58±12.8	51±14.0	44	23	173±9.07	32.6±0.88	1.52±0.19	0.72±0.03	30.98
Mentha piperita	68	28.2±11.0	61±11.0	31	-	-	-	1.43±0.06	0.54±0.12	31.31
Moru alba	76	40±8.6	53.6±17.6	49	12	92.3±12.1	42.3±0.33	1.23±0.06	0.08±0.03	39.2
Ocimum tenuiflorum	77	63±10.9	57±10.8	21	5	142.3±1.2	4.3±0.88	1.24±0.12	0.6±0.15	21.42
Oxalis stricta	57	40±3.2	53.3±1.4	34	6	73.3±8.7	12±0.577	1.55±0.14	0.63±0.09	37.36
Parthenium hysterophorus	81	40±8.9	48.3±2.3	33	-	-	-	1.76±0.11	0.5±0.03	28.94
Phanera verigata	63	48±8.6	51.6±18.7	37	8	160.3±13.9	30±3.05	1.5±0.2	0.41±0.05	37
Psidium guajava	65	59±9.07	52±16.8	41	7	47±0.5	42.3±0.33	1.47±0.06	0.72±0.03	38.67
Raphanus raphanistrum	82	40±8.6	51±14.0	46	5	173±1.23	14±1.51	1.59±0.14	0.5±0.03	35.93
Solanum nigrum	90	49±14.7	40±3.21	27	6	146±12.0	20±0.57	1.52±0.19	0.44±0.02	23.07
Spinacea oleracea	58	67±16.5	51.6±18.7	29	-	-	-	1.19±0.29	0.53±0.13	33.33
Triticum aestivum	56	58±12.8	49±14.7	31	-	-	-	1.61±0.33	0.54±0.12	35.63

Table 4: Quantitative Analysis of Leaf Epidermis (Adaxial)

Plant species	**No of epiderm-al cell (a)**	**Epidermal cell (µm)**		**No of stoma-ta (av)**	**No of Tricho-me (av)**	**Trichome (µm)**		**Stomatal (µm)**		**Stomat-al index (%)**
		Length (Mean±E)	**Width (Mean±E)**			**Length (Mean ±E)**	**Width (Mean±E)**	**Length (Mean±E)**	**Width (Mean±E)**	
Amaranthus viridus	65	59±9.07	21.4±2.2	31	3	48±0.57	12±0.577	1.2±0.08	1.06±0.08	32.29
Brassica rapa	97	48.9±5.2	39.5±6.8	21	-	-	-	1.4±0.26	1.3±0.05	17.79
Bougenvellia glabra	89	61.3±8.9	22.8±1.6	12	5	175±21.2	3±0.577	1.3±0.08	0.53±0.03	11.18
Brassica	79	79±6.6	59±18.9	46	-	-	-	1.6±0.17	0.37±0.03	36.8

compestris										
Chenopodium album	134	38.4±2.4	38.3±10.3	30	-	-	-	0.62±0.04	0.7±0.1	18.29
Citrus limetta	90	49±14.7	55±14.5	34	-	-	-	0.43±0.03	2.09±0.1	24.41
Citrus limon	99	67±16.5	62±16.1	37	-	-	-	1.3±0.06	1.55±0.08	27.20
Citrus sinensis	93	48±8.6	51±14	29	-	-	-	1.8±0.03	1.51±0.04	23.77
Coriandrumsativum	70	49±14.7	56.3±5.6	41	-	-	-	1.52±0.1	0.18±0.02	36.93
Dahlia pinnata	153	22±16.8	53±16.7	30	8	82±12.1	4±0.577	1.87±0.06	0.3±0.036	16.39
Delbergia sisoo	88	57±16.4	69.6±6.69	19	5	93±8.7	18.6±1.2	1.58±0.09	0.08±0.03	17.75
Euphorbia hirta	86	41.3±7.8	40.0±8.9	41	4	33±6.6	35.6±2.6	1.43±0.06	0.6±0.15	32.28
Euphorbia milli	68	53.3±1.4	48.3±2.3	14	-	-	-	0.63±0.09	0.44±0.02	17.07
Ficus benghalensis	90	51.6±18.7	61.3±8.9	29	4	46±12.0	17.6±0.6	0.16±0.03	0.3±0.008	24.36
Ficus religiosa	66	52±16.8	51.6±18.7	30	-	-	-	0.2±0.005	0.13±0.02	31.25
Gerbera auriantiaca	87	51±14.0	39.6±9.2	33	-	-	-	0.5±0.05	0.5± 0.03	27.5
Hibiscus rosa-sinensis	79	51.6±18.7	51.6±18.7	17	2	167±21.2	42.3±0.88	1.76±0.07	0.41±0.05	17.7
Lathyrus odoratus	69	69±6.6	49±14.7	23	-	-	-	1.44±0.12	0.42±0.04	25.01
Melia azerach	102	67±16.5	67±16.5	41	3	193±9.07	32.6±0.88	1.52±0.19	0.72±0.03	28.57
Mentha piperita	88	48±8.6	48±8.6	21	-	-	-	1.43±0.06	0.5±0.03	19.26
Moru alba	86	40±8.6	40±8.6	44	2	91.3±12.1	22.3±0.33	1.23±0.06	0.44±0.02	33.84
Ocimum tenuiflorum	91	58.3±19.4	58.3±19.4	13	4	122.3±1.2	1.3±0.88	1.24±0.12	0.53±0.13	12.5
Oxalis stricta	67	40±3.2	53.3±1.4	28	6	72.3±8.7	32±0.577	1.55±0.14	0.54±0.12	29.47
Parthenium hysterophorus	93	57±16.4	48.3±2.3	20	-	-	-	1.76±0.11	0.5±0.03	17.69
Phanera verigata	77	48±8.6	51.6±18.7	39	9	169.3±13.9	39.4±3.05	0.54±0.12	0.41±0.05	33.62
Psidium guajava	71	58±12.8	52±16.8	36	6	57±0.5	42.4±0.33	0.08±0.03	0.72±0.03	33.64
Raphanus raphanistrum	89	40±8.6	51±14.0	39	4	113±1.23	13±1.51	0.6±0.15	1.5±0.2	30.46
Solanum nigrum	88	49±14.7	20.4±2.2	13	8	126±12.0	27±0.57	0.63±0.09	1.47±0.06	12.87
Spinacea oleracea	65	67±16.5	39.5±6.8	26	-	-	-	1.19±0.29	1.59±0.14	28.57
Triticum aestivum	76	48±8.6	22.8±1.6	28	-	-	-	1.61±0.33	1.52±0.19	26.92

Quantitative Examination of Leaf Abaxial Surface

Table 3 shows the point by point quantitative examination of a couple of parameters of leaf epidermis. No of epidermal cells (Max 133 and Min 56), stomatal number (Max 56 and Min 19) and number of trichomes (Max 23 and Min 5) if display has been determined. Length (Max 69±6.6 µm and Min 28.2±11.0 µm) width of epidermal cell (Max 69.6±6.69 µm and Min 20.4±2.2 µm), length (Max 2.09±0.1µm and Min 0.7±0.1µm) and width (Max 0.72±0.03µm and Min 0.08±0.03 µm) of stomata and length (Max 185±21.2 µm and Min 47±0.5 µm) and width (Max 42.3±0.33 µm and Min 4±0.577 µm) of trcihome was processed in little scale patterns for all side. Mean of tripleevaluations was taken and S.E was enumerated by using Statistical packages for social sciences true programming. Stomata record (Max 46.55% and Min 19.01%) was furthermore figured by using specific condition.

Quantitative Examination of Adaxial Surface of Leaf

Table 4 exhibits the distinct quantitative examination of a couple of parameters of leaf epidermis. No of epidermal cells (Max 153 and Min 65), stomatal number (Max 46 and Min 13) and number of trichomes (Max 9 and Min 2) if show has been registered. Length (Max 79±6.6 µm and Min 22±16.8 µm) width of epidermal cell (Max 69.6±6.69 µm and Min 21.4±2.2 µm), length (Max 1.87±0.06 µm and Min 0.08±0.03 µm) and width (Max 2.09±0.1 µm and Min 0.08±0.03 µm) of stomata and length (Max 193±9.07 µm and Min 33±6.6 µm) and width (Max 42.4±0.33 µm and Min 3±0.577 µm) of trcihome was figured in little scale cadences for individual side. Average of triple measurements were recorded and S.E was figured by operating SPSS true programming. Stomata record (Max 36.93% and Min 11.18%) was furthermore processed by using specific condition.

Comparative Examination of Adaxial and Abaxial Surfaces

As shown by text Figs. 2 & 3 comparative examination of Stomatal record has been done which exhibits *Coriandrumsativum* as overpowering with stomatal document > 45% in both adaxial and abaxial surfaces. While *Bougainvillea glabra* exhibited the base stomatal record < 20% in both adaxial and abaxial surfaces. Content figure 2 exhibits comparable examination of number of stomata amidst adaxial and abaxial surfaces.

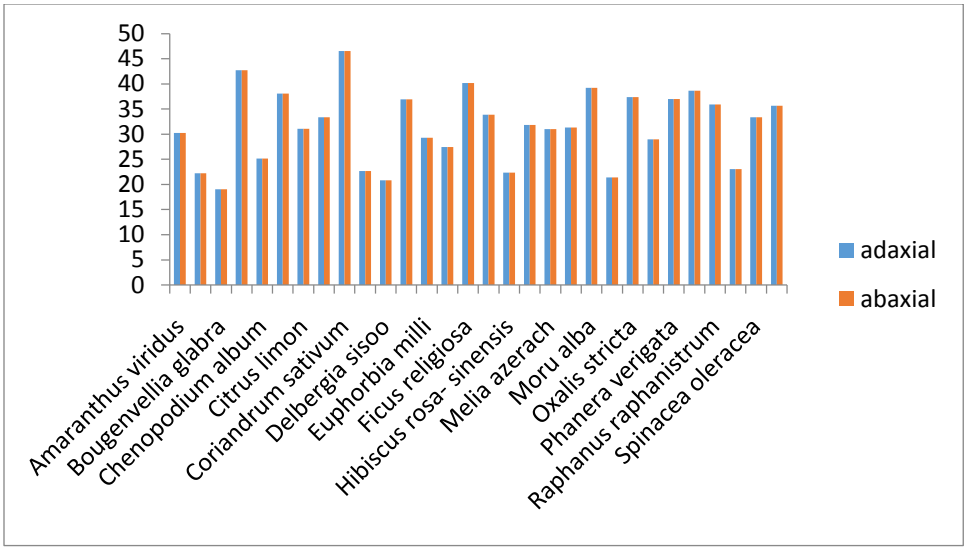

Fig 2: Comparative analysis of Stomala index between Abaxial and adaxial surfaces showing plants on x- axis and SI on y- axis.

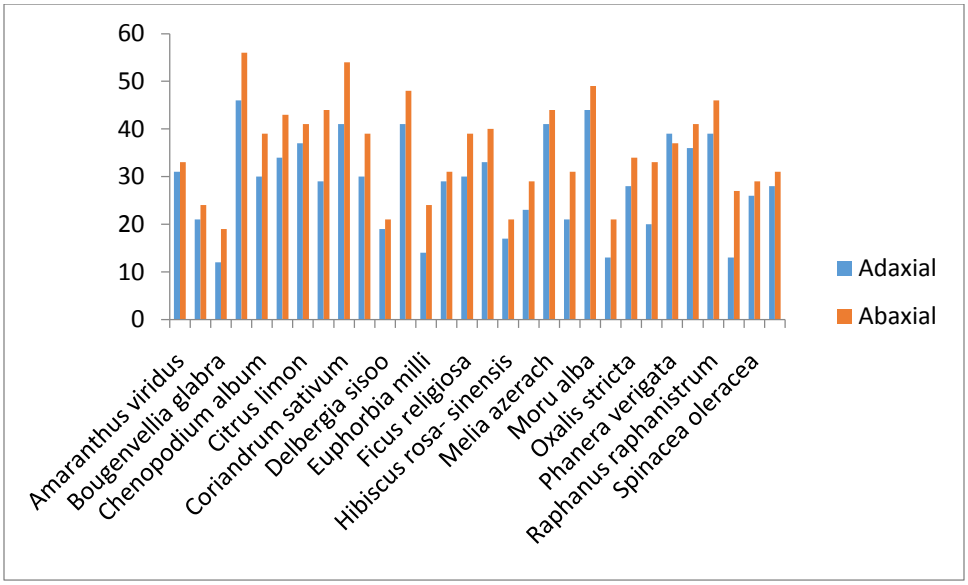

Fig 3: Comparative analysis of No of stomata between Adaxial and abaxial surfaces showing plants on x- axis and stomatal number on y- axis.

DISCUSSION

Facilitated examination was prepared on 30 specimens from 16 families in which, 25 genera lied were collected, comprehended and preserved in polythene bags. In total collection it was classified that (43%) herbs, (23%) shrubs and (33%) trees shown in Fig 4. Examination of morphological characters exhibited that area is sensible for headway of all sort of flora in perspective of status. This goes exactly with (Bibi et al., 2014) morpho-anatomical examinations and result was that the vegetation of Karak District are all around acclimated to their ecological conditions. The collective plants were grown and green. Few specie like *E. milli* with full foliage was likewise amassed which coincides exactly with (Essiet et al., 2012). By a long shot a large portion of the plants have single flowers like specie from family rutaceae, myrtaceae, malvaceae, barassicaceae, oxalidaceae, and solanaceae. Two or three families like asteraceae and amaranthaceae whose have inflorescence doing what needs to be done. (Table 1)

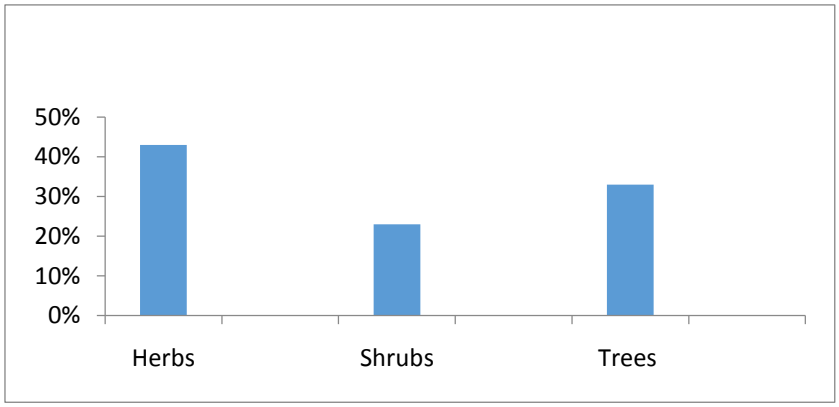

Fig 4: Categories of plant samples showing plants categories on x- axis and percentage on y- axis.

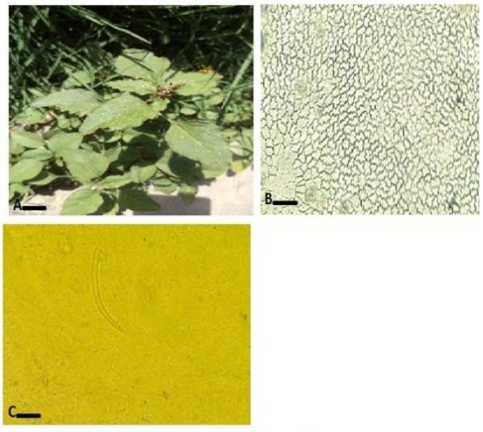

Fig. 5. *Amaranthus viridus*L. A: Morphology; B: Adaxial surface; C: Abaxial surface

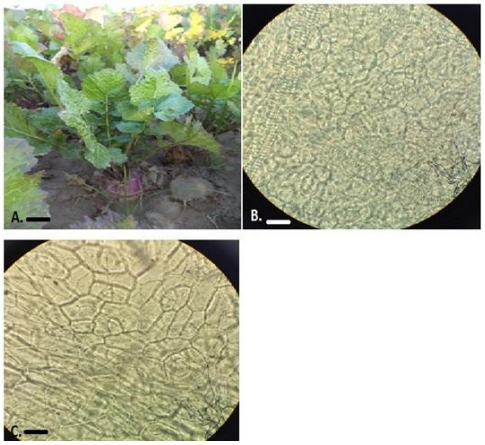

Fig. 6. *Brassica raa*L.A: Morphology; B: Adaxial surface; C: Abaxial surface

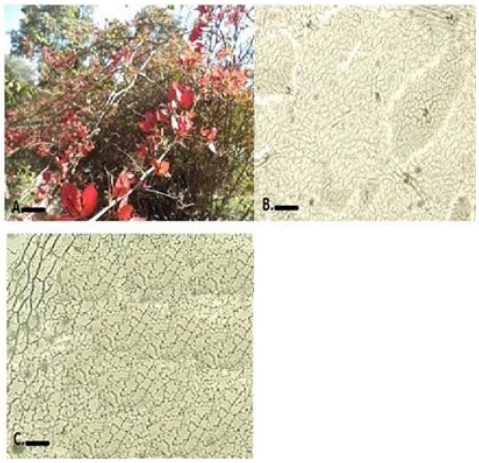

Fig. 7. *Bougainvillea glabra* Choisy. A: Morphology; B: Adaxial surface; C: Abaxial surface

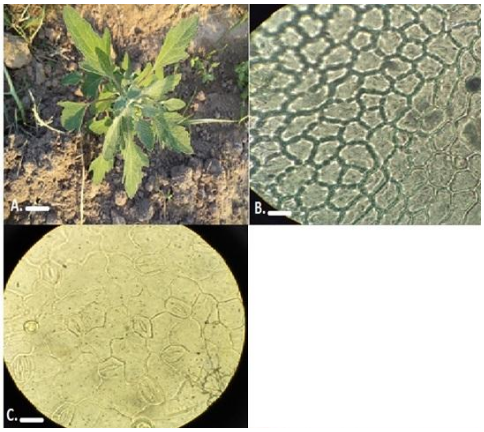

Fig. 9. *Chenopodium album* L. A: Morphology; B: Adaxial surface; C: Abaxial surface

Fig. 8. *Brassica compestris*L. A: Morphology; B: Adaxial surface; C: Abaxial surface

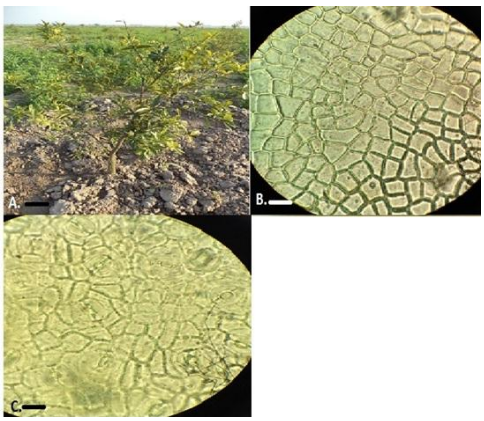

Fig. 10. *Citruli metta*Risso. A: Morphology; B: Adaxial surface; C: Abaxial surface

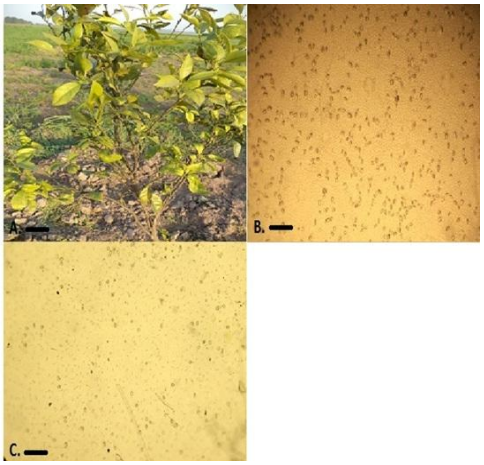

Fig. 11. *Citrus limon*L. (Osbeck) A: Morphology; B: Adaxial surface; C: Abaxial surface

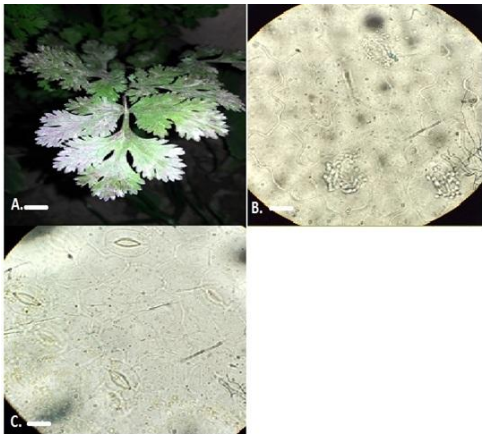

Fig. 13. *Coriandrum sativum* L.A: Morphology; B: Adaxial surface; C: Abaxial surface

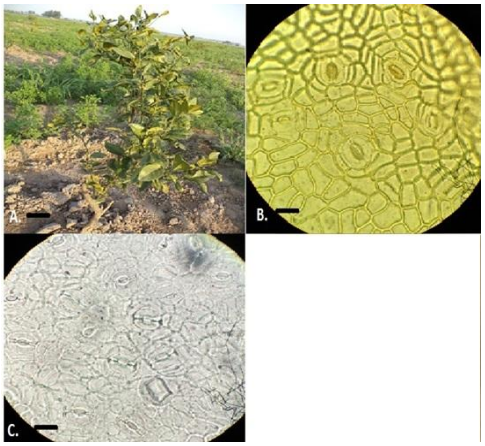

Fig. 12. *Citrus sinensis* L. (Osbeck)A: Morphology; B: Adaxial surface; C: Abaxial surface

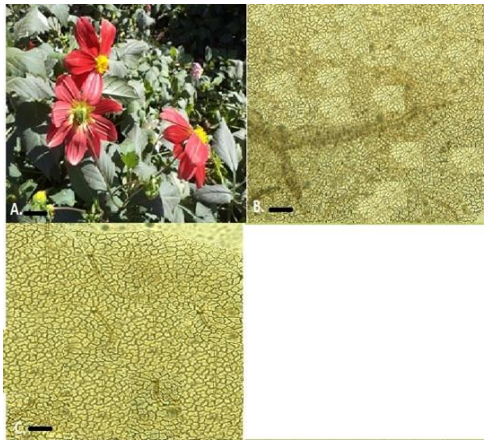

Fig. 14. *Dahlia pinnata*Cav.A: Morphology; B: Adaxial surface; C: Abaxial surface

Fig. 15. ***Delbergia sisoo*****Roxb.A: Morphology; B: Adaxial surface; C: Abaxial surface**

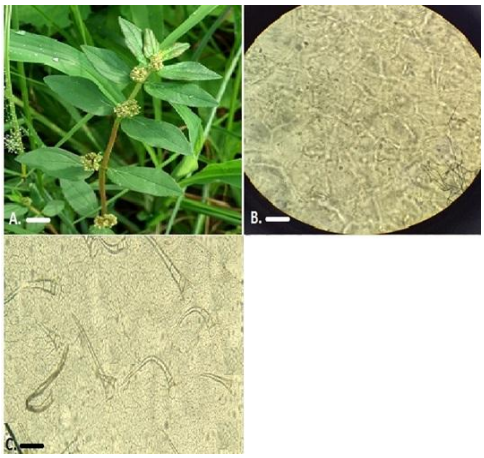

Fig. 16. ***Euphorbia hirta*** **L.A: Morphology; B: Adaxial surface; C: Abaxial surface**

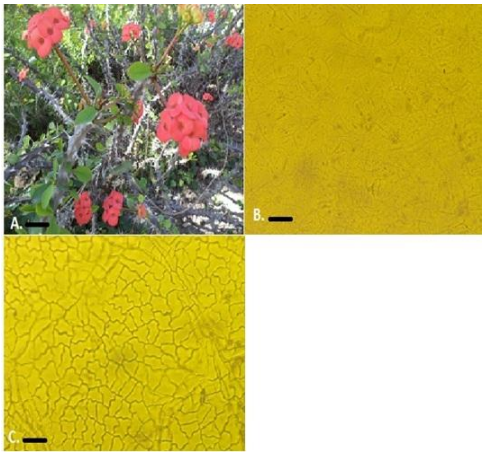

Fig. 17. ***Euphorbia milli*** **DesMoul.A: Morphology; B: Adaxial surface; C: Abaxial surface**

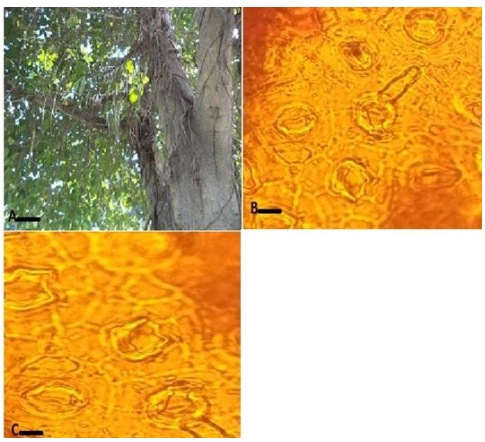

Fig. 18. ***Ficus benghalensis*** **L.A: Morphology; B: Adaxial surface; C: Abaxial surface**

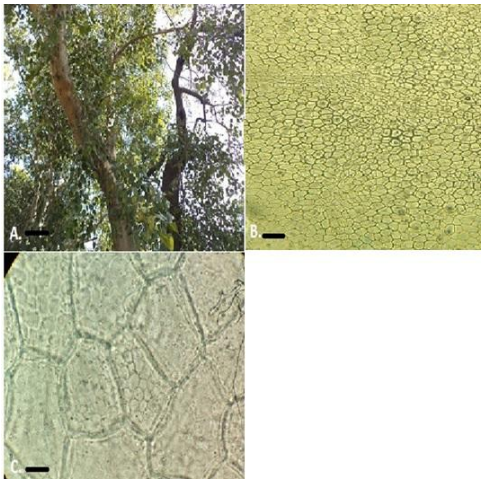

Fig. 19. ***Ficus religiosa*** **Fross.A: Morphology; B: Adaxial surface; C: Abaxial surface**

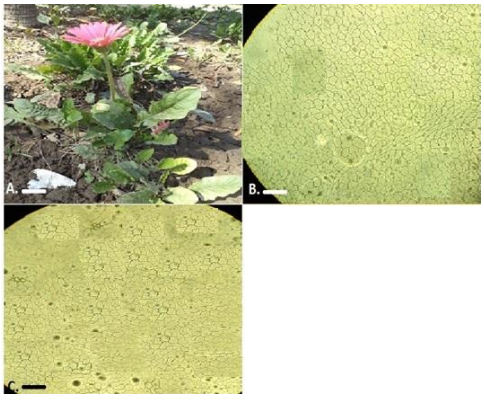

Fig. 20. ***Gerbera auriantiaca*** **SchBip.A: Morphology; B: Adaxial surface; C: Abaxial surface**

Fig. 21. ***Hibiscus rosa- sinensis*****L.A: Morphology; B: Adaxial surface; C: Abaxial surface**

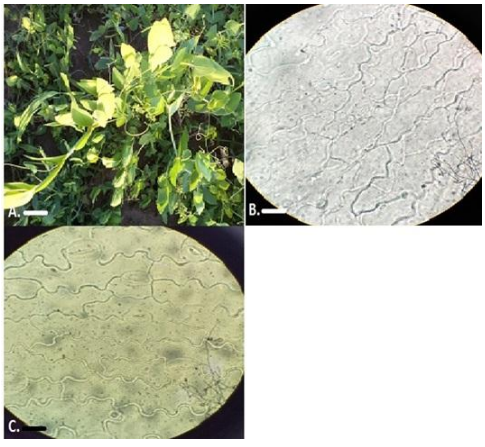

Fig. 22. ***Lathyrus odoratus*** **L.A: Morphology; B: Adaxial surface; C: Abaxial surface**

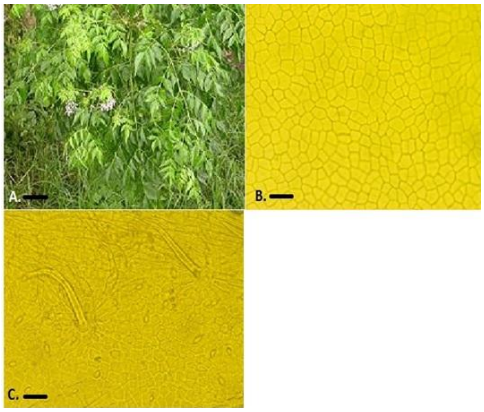

Fig. 23. ***Melia azedarach*** **L.A: Morphology; B: Adaxial surface; C: Abaxial surface**

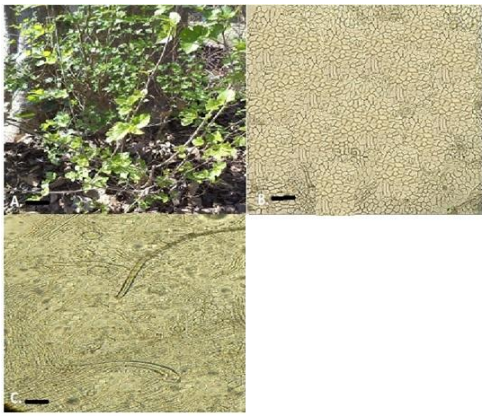

Fig. 26. ***Morus alba*** **L.A: Morphology; B: Adaxial surface; C: Abaxial surface**

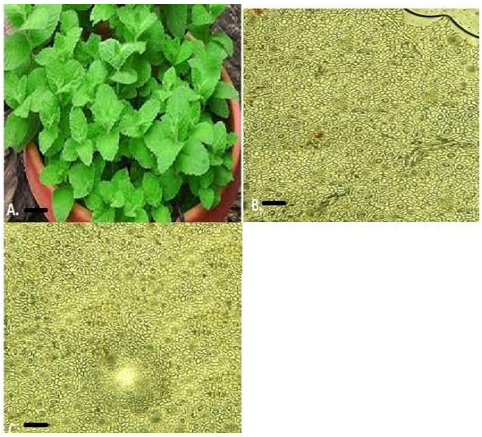

Fig. 24. ***Mentha piperita*** **L.A: Morphology; B: Adaxial surface; C: Abaxial surface**

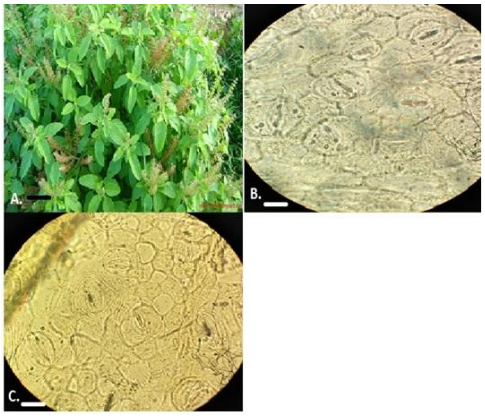

Fig. 27. ***Ocimum tenuiflorum*** **L.A: Morphology; B: Adaxial surface; C: Abaxial surface**

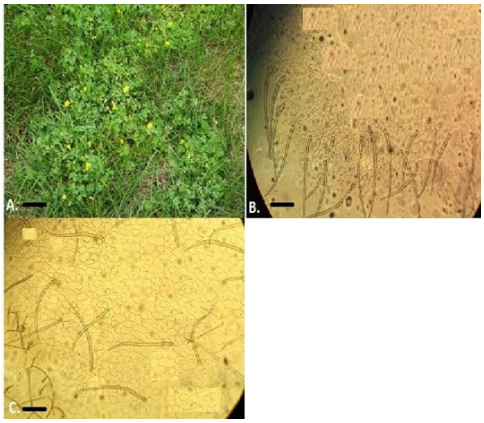

Fig. 28. *Oxalis stricta* L.A: Morphology; B: Adaxial surface; C: Abaxial surface

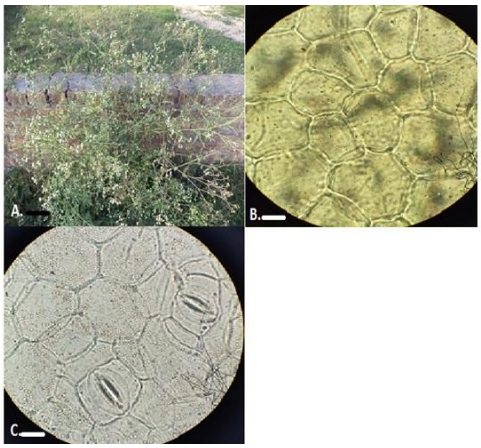

Fig. 29. *Parthenium hysterophorus* L.A: Morphology; B: Adaxial surface; C: Abaxial surface

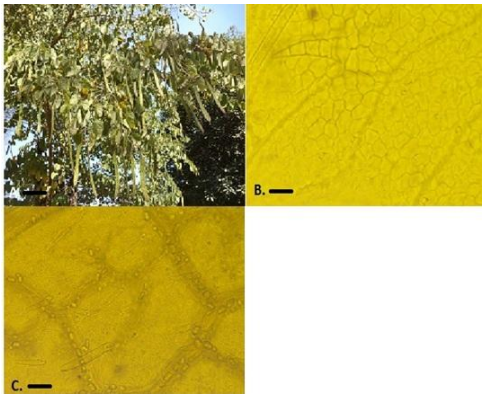

Fig. 30. *Phanera verigata* L.A: Morphology; B: Adaxial surface; C: Abaxial surface

Fig. 31. *Psidium guajava* L.A: Morphology; B: Adaxial surface; C: Abaxial surface

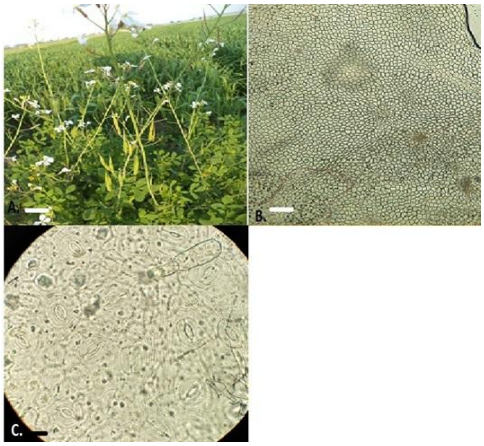

Fig. 32. *Raphanus raphinastrum* A: Morphology; B: Adaxial surface; C: Abaxial surface

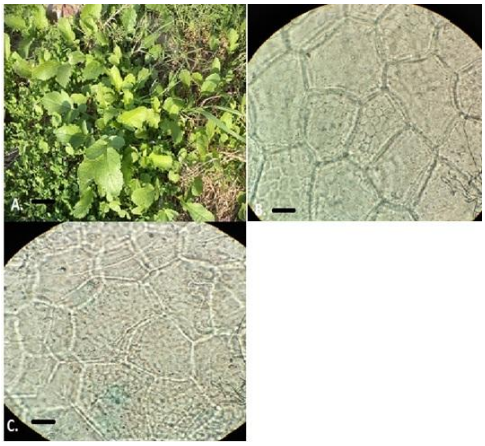

Fig. 34. *Spinacea oleracea*A: Morphology; B: Adaxial surface; C: Abaxial surface

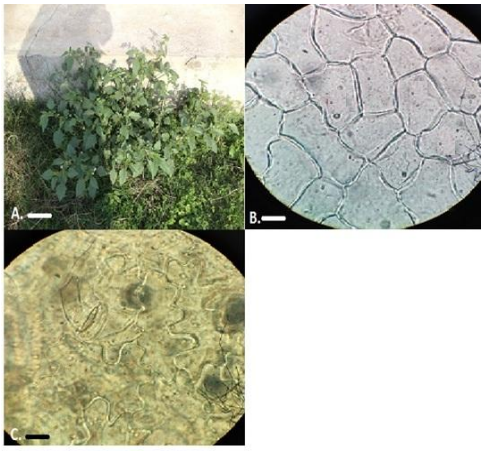

Fig. 33. *Solanum nigrum*L.A: Morphology; B: Adaxial surface; C: Abaxial surface

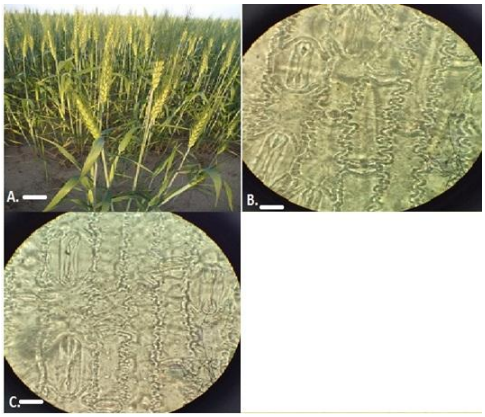

Fig. 35. *Triticum aestivum*L.A: Morphology; B: Adaxial surface; C: Abaxial surface

Following examination was composed in District Sheikhupura of Pakistan. Custom experimentation was considering verdure in light of Anatomical characters. Pakistan is known for featureresources with amazing potential for plants development. Zone of studied area of course, has huge and distinctive greenery which justifies considering. As shown by composing, the inspect consider on the greenery of following domain has not been done yet. From this time forward the anatomical examinations about has been driven here in context of its massive availability of close-by and made vegetation.

Morphologically the greater part of the plants is apparently vague, for drive study

and knowing the capability in the midst of various sorts of plants anatomical examinations are performed. The present anatomical examination was done on the presentation of two classes. The leaf epidermal layer was examined abstractly and besides quantitatively. Abstract characters among plants traces were epidermal cells shape. 3 plants have protracted, 6 have wavy, 7 have polygonal, 8 have sporadic and 6 have pentagonal and mixed shape. Among stomatal sort, anomocytic 17%, actinocytic 17%, paracytic 26%, cyclocytic 17%, anisocytic 13% and diacytic 10%. Half plants were having trichomes alive and well of round and empty, hirsute, setose, multicellular, moniliform, falcate and calvate. Our examination runs decisively with complete of (Alege and Daudu, 2014; Ellis, 1976) emotional and quantitative examination of leaf epidermis. Rest half plants were not securing trichomes. Unique examination has been dealt with in Table 2.

Quantitative examinations were done uninhibitedly for adaxial and abaxial surfaces and this examination concurs with (Essiet et al., 2012). In abaxial surface smallest number of epidermal cells 56 was found in the abaxial surface of *T. aestivum* while most critical number of stomata 133 was found in *D. pinnata*. Remaining plants lied in this range. The length of epidermal cells in abaxial surface reaches in the midst of 28.2±11.0 to 69±6.6 and width ranges from 20.4±2.2 to 69.6±6.69. No of stomata are most essential 56 in *B. compestris* and smallest in 19 in *B. glabra*. Most unprecedented stomatal length is 2.09±0.1 and scarcest is 0.7±0.1. Most phenomenal width is 0.72±0.03 and least is 0.08±0.03. Stomatal rundown was most noticeable is 46.55% and least is 19.01% as showed up in Table 3. In adaxial least number of epidermal cells 65 was found in the adaxial surface of A. viridus while most unprecedented number of epidermal cells 153 was found in D. pinnata. Remaining plants lied in this range. The length of epidermal cells in adaxial surface extents in the midst of 22±16.8 to 79±6.6 and width ranges from 21.4±2.2 to 69±6.6. No of stomata are most conspicuous 46 in B. compestris and smallest in 12 in *B. glabra.* Most ridiculous stomatal length is 1.87±0.06 and scarcest is 0.08±0.03. Most unmistakable width is 1.59±0.14 and least is 0.08±0.03. Stomatal document was most remarkable in 36.98% and least is 11.18% as showed up in Table 4. the good assortment in the data happened due to periodic and climatic assortments in the particular region. As Leaf epidermis is a saint among the most basic requested characters from the fundamental point of view and the requested examinations of different families are made on the start of leaf epidermis (Bhatia, 1984; Stace, 1984; Jones, 1986; Baranova 1972). This range shows that vegetation of District Sheikhupura has wide collection of plants with various anatomical characters.

CONCLUSION

This examination reasons that flora of District Sheikhupura is essential land plant development. Wild and cultivated plants were equally presented and well growing in given environmental conditions. Plants were seen onflinch of dominated characteristics which showed that in morphological characteristics, specimens showed best growth and flourishing parameters, while anatomically there is a shocking cumulative quality found in the plants. The unique quality in these examinations was basically a quick delayed consequence of progression in climatic

condition and fitting sprouting season for the particular plant.

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