

Shrubs in Spate Irrigation Areas in Pakistan

Prepared by:
Karim Nawaz

with assistance of:
Raja Naeem Ashraf



“Shrubs are gift of nature and the source of livelihood in arid areas” – a local proverb

These are multipurpose:

Used by livestock as fodder from small ruminants to camels

Firewood at household level, brick kilns, pottery kilns

Medicinal value

Soil conservation and soil fertility

Water diversion

Roofing material

Income generation

Withania Coagulens

Local Name: **Panir**

Mostly found in sandy
and loamy sandy soils

Highly drought resistant

Can grow up to 2 meters



Extremely thick in coverage and canopy

Birds like to hide inside

Dead branches are used for fire wood

People protect this plant



Flowers are liked by bees

Fruit/seed is used in different medicines by local pharmacists and hakims (doctors)

Seed sold in local markets and exported abroad and used in herbal medicine industry

Seed is used for various medicinal purposes at household level in daily life

Its seed is kept almost in every household is used to prepare local cheese



Kochia Indica

Local Name: Boi

Mostly grows in sandy soil

Found in all provinces including coastal zone

Highly drought resistant

Found in hot areas including coastal zones

Can grow up to 2.5 meters height

Stem and branches are thin and light weight

Produces material used to fill pillows/ quilts and other bedding items

At flowering stage liked by bees



Excellent fodder for camels,
donkeys, cattle, sheep and goats
and is available during drought
periods

Used for firewood at household level

Widely used in kilns for brick making

Used in pottery kilns for fire fuel

Branches are used to divert spate
water to the field



Sida Frutiosa

Haloxylon Camelrun

Local Name: Laana/Laani

Height can reach up to 1 meter
depending upon different factors such as
water availability

Slow growing

Highly drought resistant

Common in all spate irrigation areas of
all 4 provinces

Main fodder for camels



One variety is used to produce charcoal mainly used by local blacksmiths in fire oven



Main source of firewood at household level in desert areas of Pakistan





These days under threat as is being used in brick kilns – commercial exploiters uproot the plant

Its one variety is used to make local soap (organic soap)



Has no thorns and thus liked to
make huts and their rooves

Excellent for sand dune stabilization





Calligonum
Polygonoides

Local name: Phog

Famous shrub of arid regions of Pakistan

Mostly grows in sandy areas

Height can reach up to 3 meters

Excellent for firewood and used at household level

Light weight and thus collected by women for firewood

Charcoal is also made from its wood

Fodder for camels, goats and sheep



Mostly used in brick kilns and
also at household level for fuel
wood

Excellent for charcoal
production



Rhazia Stricta

Local Name: Sinwaar

Commonly found in sand dunes and sandy soils throughout spate irrigated areas

It has bitter taste

Shrub can reach up to 0.75 meters in height

The dry leaves are eaten by goats, sheep and camels



Good for sand dune stabilization

Sometimes used for firewood at household level

Has medicinal value and used in herbal medicines



Medar

Local name: Aak

Found in dry areas of all 4 provinces including coastal zone

Height can reach up to 3 meters and sometimes can grow as a tree too (only in rare cases)

Dry leaves are used as fodder for goat and sheep – not liked by other animals

Have medicinal value – secretion /milk, leaves, seed and bark is used for different purposes



Should be used only on prescription
otherwise very toxic

Branches are hallow inside and used for
pipe in smoking machine (shisha)



Ispghol

Found in spate irrigation areas

Likes loamy sandy soils

Good crops on Winter rains during
December and early January

Starts growing in February Harvested at the
end of in April

Male and female plants are identical

Male plant requires more water and found in
depressions where more moisture is
available

Male will not survive if there is less moisture
during its growth

Male plant seed is more coarse as
compared to female plant



Female plants grows better on soil having good drainage qualities, i.e. on slopes too

Women harvest its seed and shoots/bulbs are grinded in local stone flouting machine

Shoots are converted into husk and is sold in local markets

Local herbal medicines dealers buy it and then sold in national and international market.

At local level its prices is about Rs. 500/kg (US 6/Kg)

It is good income source for woman in local areas and on average, depending on production, every woman engaged in this business can collect 15 to 20 Kgs each year.



