

ICARDA PASTORETUM

The Pastoretum, a living herbarium and seed bank of important fodder shrubs and medicinal plants for the CWANA region was established at ICARDA in 1998. The purpose of the Pastoretum is to serve as a demonstration and training site and to maintain a supply of seed for use by cooperating regional NARS. It also serves as a testing ground for the adaptability of perennial fodder or medicinal plants to environments similar to that at Tel Hadya where the mean annual precipitation is 338mm. Seeds or plants have been provided the NARS to test adaptability in their countries for fodder or medicine in order to boost farmer income and conserve soil. This enables preliminary evaluation, seed multiplication, and capacity building of national partners.

Most rangelands in Central and West Asia and North Africa (CWANA) are progressively degrading and producing less forage than potential due to overgrazing by an increasing livestock population. Adapted native and introduced fodder shrubs and trees could be integrated into the smallholder crop-range-livestock production systems to improve available feed and could reduce pressure on the rangeland if properly managed. There is limited data on environmental adaptation, biomass production and fodder quality of most of the fodder shrubs in the region and the Pastoretum is providing some of these data. Sheep have been allowed to browse the Pastoretum to determine preference and suitability as livestock feed.

ICARDA and national, regional and international partners are collecting, conserving and exploiting native and introduced fodder shrubs to develop appropriate technologies to increase outputs of crop and livestock products and improve ecosystems health in the smallholder crop-range-livestock production systems in the dry areas of CWANA.

Integration of the promising fodder shrubs into smallholder crop-range-livestock production systems with similar environmental conditions as northern Syria includes living fences and hedges, wind-breaks, shade, fodder banks and improved fallows. They provide fodder, fuel-wood, shade, medicine; improve soil fertility and reduce erosion. Some fodder shrubs have been established as living fodder reserves for use during drought especially in North Africa.

List of species in Pastoretum

Non-legume Fodder Shrubs

Aellenia subaphylla
Artemisia herba-alba
Atriplex canescens
Atriplex Cordobensis
Atriplex glauca
Atriplex halimus
Atriplex lentiformis
Atriplex leucoclada
Atriplex nummularia
Atriplex polycarpa
Atriplex torreyi
Atriplex undulata
Ceratoides ewersmanniana

Grasses

Agropyron cristatum
Agropyron desertorum
Agropyron elongatum
Agropyron fragile
Dactylis glomerata
Eragrostis sp.
Festuca elatior
Lolium sp.
Oryzopsis miliacea
Panicum turgidum
Phalaris tuberosa

Halothamnus subaphyllus
Haloxylon aphyllum
Kochia prostrata
Salsola orientalis
Salsola richtei
Salsola rigida
Salsola vermiculata
Zygophyllum atriplicoides

Fodder Legume Shrubs

Astragalus aleppicus
Astragalus eximius
Bituminaria bituminosa
Chamaecytisus mollis
Colutea istria
Coronilla glauca
Medicago arborea
Onobrychis aurantiaca

Non-legume Herb

Paronychia argentea
Plantago lanceolata
Sanguisorba minor

Medicinal Plants

Achillea aleppica
Achillea filipendulina
Achillea santolina
Achillea sp.
Agava americana
Artemisia herb-alba(spain)
Artemisia herb-alba(syria)
Capparis spinosa
Cerantonia siliqua
Fibigia clypeata
Glycyrrhiza glabra
Hysopous Officinalis
Laurus nobilis
Lavandula lanata
Mentha longifolia
Panicum turgidum
Paronchiya argentea
Peganum harmala
Pistacia athantica
Quercus calbiprinos
Rhus coriaria
Rosmarinus officinalis
Salvia officinalis
Sanguisorba minor
Santolina lanata
Spartium Gunceum
Thymus vulgaris