

***INDIGENOUS TRADITIONAL KNOWLEDGE (ITK) OF  
BANNI MALDHARIS ON ANIMAL HEALTH CARE IN  
BANNI REGION, KACHCHH, GUJARAT***

**Present by**

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# Danish bio-piracy bid on ginger foiled

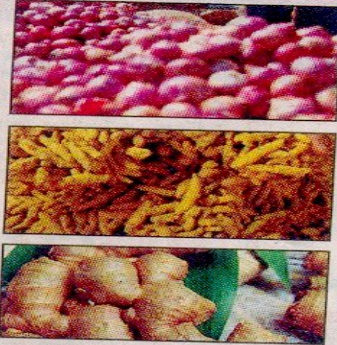
Alert India Says We Knew All Along It Could Burn Fat

Kounteya Sinha | TNN

New Delhi: India foiled a major bio piracy bid by a Danish company to patent ginger, jeera (cumin), onion and turmeric's fat burning properties, just as it stopped China from patenting pudina's health benefits last month.

Claras ApS, a Danish company, on September 19, 2007 filed a patent application at the European Patent Office, saying its invention of turmeric, cumin, ginger and onion as slimming agents was novel. But the Council of Scientific and Industrial Research (CSIR), with the help of India's Traditional Knowledge Digital Library (TKDL), dug out formulations from ancient Ayurveda texts like *Astanga Samgraha*, *Yogaratanakarah*, *Yogatarangini* and *Gadani-*

**NOT A SLIM CHANCE**



Claras ApS, a Danish company, had filed a patent application for its 'invention' of turmeric, cumin, ginger and onion as slimming agents. But the Council of Scientific and Industrial Research dug out formulations from ancient texts to prove their use for ages in India, as fat burners

*grihah*, dating back to the 5th century, which contained formulations involving their use for ages in India, as fat burners. TKDL director Dr V K Gupta submitted a letter to EPO on August 25, 2009 to inform the examiners that all the four have long been known in Indian systems of traditional medicine for their use as slimming agents or fat destroyers.

CSIR's letter to EPO said, "The patent application number EP2044850, titled method for altering the metabolism characteristic of food pro-

ducts, may kindly be referred to wherein the usefulness of a herbal composition of *Zingiber officinale* (ginger), *Allium cepa* (onion), *Cuminum cyminum* (cumin seed) and *Curcuma longa* (turmeric) on being added to a food product as a slimming agent by altering the digestion characteristic/metabolism characteristic of the food product has been claimed to be novel."

The letter added, "In TKDL, there are several references where all four have been found to be used for improving digestion process and

act as slimming agent. Hence, there does not seem to be any novelty or inventive step involved in the claims made in the above referred patent application." The letter was accompanied with evidence from age-old Indian medicinal texts. "Following India's intervention, the Danish company was not left with any option except to withdraw its patent and claims. Accordingly, the company decided to withdraw its three-year-old application," a health ministry official said.

TKDL is a collaborative project between CSIR and the health ministry's department of Ayush. In 2000, the TKDL expert group estimated that about 2,000 wrong patents concerning Indian systems of medicine were being granted every year at international level, mainly due to the fact that India's traditional medicine knowledge existed in languages such as Sanskrit, Hindi, Arabic, Urdu, Tamil etc and was neither accessible nor understood by patent examiners at the international patent offices.

How India won the Battle

Yes, ITK

# What is ITK ?

- Knowledge, be it technological, know-how skills, practices and belief, that a local community accumulated over generations of living in a particular environment.

*4 components of ITK Guna, karma, Prakara, Vritti*

***Ayurveda, the ancient Indian Science,  
is mother of all knowledge system !***

# Why ITK is Important ?

- Basis of any knowledge system
- Generated through experimentation
- Product of eco-system
- Suits local environment
- Stop bio-piracy

– *World Bank 1997*

***Today, ITK is at risk of becoming extinct due to rapid change in natural environment, fast pacing economy, political and cultural dilution***

# Objective

- *Documentation on ITK on Animal Health Care possessed by Maldharies of Banni.*
- *Identify strategy of future integration with modern science.*

# Methodology

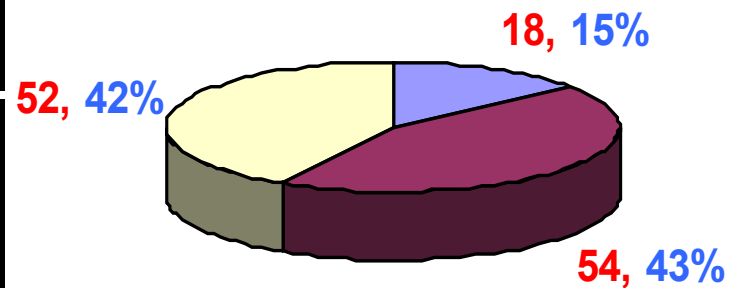
- **Personal interview by questioner survey**
- **Focus group discussion with local inhabitants with “age” as parameter to the assess the present status of ITK**
- **Literature review**
- **Data analysis**

# Findings

Age (year)	No of Participation	Villages	Plants	Animal Diseases/ Ailments	Traditional treatments
Above 70	11	38	35	39	337
60-70	24				
50-60	28				
40-50	29				
30-40	18				
20-30	14				
<b>Total</b>	<b>124</b>				

# Outreach of Traditional Healers in Banni

Out reach type	No of Traditional Healers	(%)
Provide Treatments in Surrounding Villages	18	15
Treatment Carried out for Animals of Own village	54	43
Treatment Carried out for Own Animals	52	42
<b>Total</b>	<b>124</b>	

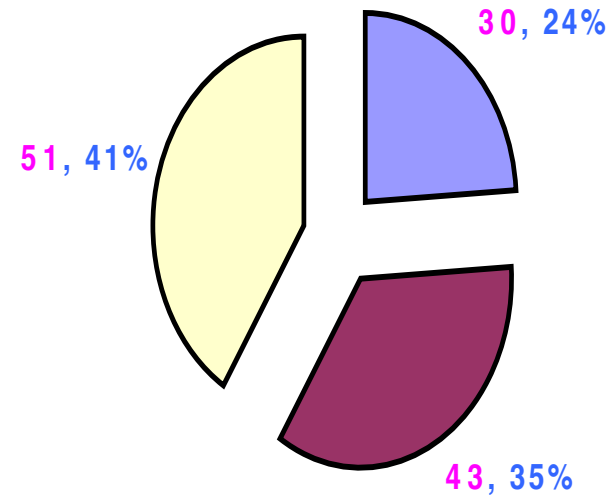


- Provide Treatments in Surrounding Villages
- Treatment Carried out for Animals of Own village
- Treatment Carried out for Own Animals



# Age wise distribution of Traditional Healers

Age category	Criteria	No of Traditional Healers
Youth	up to 35 years	30
Middle Aged	above 35 to 50 years	43
Old	more than 50	51
<b>Total</b>		<b>124</b>



- Youth up to 35 years
- Middle Aged above 35 to 50 years
- Old more than 50

<b>Body Systems/ No of Diseases</b>	<b>Name of Diseases/ Ailment</b>	<b>No of Treatments</b>	<b>No of plants used</b>
Digestive (8)	Tympany	29	4
	Diarrhoea	28	4
	Constipation	17	3
	Endo Parasite	9	2
	<i>Pakhi/Holo</i>	7	-
	<i>Green pitto</i>	9	2
	Indigestion	6	3
	<i>Dry Pitto</i>	1	-

Conti...

<b>Body Systems/ No of Diseases</b>	<b>Name of Diseases/ Ailment</b>	<b>No of Treatments</b>	<b>No of plants used</b>
Reproductive (6)	Retention of Placenta (Rop)	25	9
	Prolapse	21	5
	Repeat Breeder	7	2
	Anoestrus	5	1
	Dystokiya	4	-
	Libido	1	-

<b>Body Systems/ No of Diseases</b>	<b>Name of Diseases/ Ailment</b>	<b>No of Treatments</b>	<b>No of plants used</b>
<b>Skin (8)</b>	Maggot wound	16	4
	Ectoparasite infection	10	3
	Bleeding	9	1
	Tumor	4	1
	Horn injury	2	1
	Iron injury	1	1
	Swelling	2	-
	Inflamated Swelling	1	-

Conti...

<b>Body Systems/ No of Diseases</b>	<b>Name of Diseases/ Ailment</b>	<b>No of Treatments</b>	<b>No of plants used</b>
Production (4)	Mastitis	8	1
	Milk Fever ( <i>Dudhiyo Tav</i> )	6	1
	Teat Obstruction	4	1
	Blood in Milk	1	-

Conti...

<b>Body Systems/ No of Diseases</b>	<b>Name of Diseases/ Ailment</b>	<b>No of Treatments</b>	<b>No of plants used</b>
Others (13)	Foot and Mouth disease (F.M.D)	18	-
	Anurea (Urine obstruction)	16	7
	Conjunctivitis (Fulu)	15	3
	Fracture	12	3
	Arthritis	11	6
	Blood in Urine	4	-
	Cough/Dyspepsia	4	2

Conti...

Body Systems/ No of Diseases	Name of Diseases/ Ailment	No of Treatments	No of plants used
	Internal injury	3	-
	Poisoning	7	1
	Rheumatism ( <i>Va</i> )	3	1
	Blood deterioration	9	3
	Fever	1	-
	Penetration of thorn	1	-

***Documented 337 treatments practice  
by Traditional Healers of Banni for 39  
Animal diseases / ailments by using  
35 Plants/Herbs/Shrubs and Trees***



# Diseases commonly treated by most of the Traditional Healer

Sr.No	Name of Diseases Treated	No of Traditional Healers (N-124)	%
1	Mastitis	122	98.39
2	Maggot wound	119	95.97
3	Fracture	112	90.32
4	Prolapse	100	80.65
5	F.M.D	96	77.42
6	Dysurea	82	66.13
7	Repeat Breeder	79	63.71
8	Poisoning	77	62.10
9	Conjunctivitis	64	51.61
10	Tumor	54	43.55

## 35 Medicinal plants use by Traditional Healers in Banni

Grass	Tree	Herb	Shrub	Climber	Total
1	14	9	6	5	35

## **Tree:- Deshi Baval** *(Acacia nilotica)*



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Fracture</b>	<b>Baval chhoda use as supporting in local pop</b>	<b>Strengthening</b>
<b>Prolapse</b>	<b>Make a baval gundh and give with khan/Ghee up to 4 to 5 days.</b>	<b>Demulcent</b>
<b>Conjunctivitis(Fulu)</b>	<b>To apply liquid juice of Baval Chhoda</b>	<b>Soothing agent, Emollient, Demulcent</b>
<b>Diarrhoea</b>	<b>Desi baval choda put in pot and keep up to 7 days under the soil and make Aatho and give it</b>	<b>Soothing agent, Astringent</b>
<b>Arthritis</b>	<b>To stick of desi bawal boil in water and rubbing of affected part</b>	<b>Anti-inflammatory</b>

# Herb:- Kuvarpathu (*Aloe vera*)



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Tympany</b>	<b>Give cutted kuvarpathu with Haldar up to 2 to 3 days</b>	<b>Laxative</b>
<b>Arthritis</b>	<b>Lapping of Kuwar Pathu and turmeric/harder and also given orally</b>	<b>Anti inflammatory</b>
<b>Fracture</b>	<b>500 g Entire part of Kuwar Pathu mix with turmeric/harder, boil them and bandages to fracture part</b>	<b>Strengthening</b>

**Shrub:- Bu Wal**  
**(*Aerva javanica*)**



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Maggot Wound</b>	<b>Grinding of root of Bu Wal and make a powder or also juice and apply on the wound</b>	<b>Healing property and Anthelmintic</b>
<b>Ecto parasite infection</b>	<b>To apply hot Decoction of bu wal root</b>	<b>Anthelmintic</b>

**Shrub:- Akado  
(*Calotropis procera*)**



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Tumor</b>	<b>Milk of Aakda apply on tumor up to 5 to 6 days for ripping</b>	<b>Ripening</b>
<b>Rop (Retention of Placenta)</b>	<b>To blow in uterus by holed Aakada stick</b>	<b>--</b>

**Shrub:- Kerad**  
**(*Capparis decidua*)**



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Fracture</b>	<b>Make a Charcoal from the stick of Kerad and mix with ghee/milk and make a ladu and give up to 10-15 days</b>	<b>Strengthening</b>
<b>Repeat breeder</b>	<b>Rotate the Kerad kathi in the cervix and break the fatness from the cervix, after that give a service by bull</b>	<b>-</b>
<b>Rop (Retention of Placenta)</b>	<b>Hot kerad stick use for remove placenta</b>	<b>-</b>
<b>Green Pitto</b>	<b>Give a mixture of kerad stick or flowers, red chilly, termaric/lasan up to 3 to 4 days.</b>	<b>Astringent</b>
<b>Maggot Wound</b>	<b>To grinding of kerad branch and apply liquid on maggot wound</b>	<b>Anthelmintic, Astringent</b>
<b>Blood deterioration</b>	<b>1 kg kerad doda boil with 200g salt and given orally</b>	<b>-</b>

**Tree:- Gorad/Kher**  
*(Acacia senegal)*



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Poisoning</b>	<b>Juice of Ghorado mix with Ghee and give up to 2 to 3 days.</b>	<b>Astringent, Emollient, Demulcent</b>



**Tree:- Gugal**  
*(Commiphora wightii)*



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Mastitis</b>	<b>1.5 kg Gugal Gund put in pot and mix with butter milk &amp; give after boil up to 3 days</b>	<b>Antimicrobial, Anti inflammatory</b>
<b>Blood deterioration</b>	<b>Prepare Gund of Gugal by fill in pot and boil them and give up to 4 to 8 days</b>	<b>Blood Purifier</b>

**Tree:- Kharijar**  
*(Salvadora persica)*



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Indigestion</b>	<b>Give mixture of Kharijar and Khan</b>	<b>Purgative</b>

**Tree:- Mithijar**  
*(Salvadora oleoides)*



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Conjunctivitis (<i>Fulu</i>)</b>	<b>To grind the leave of Mithijar/ Piludee and mix with water of sugar and apply on eye</b>	<b>Emollient, Resolvent of inflammation</b>
<b>Rop (Retention of Placenta)</b>	<b>Give ladu of mixture of Mithijar and Good up to 4-5 days</b>	<b>Resolvent of inflammation, Tonic and Stimulant</b>

**Shrub:- Khipado**  
*(Leptadania pyrotechnica)*



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Rop (Retention of Placenta)</b>	<b>Give boiled mixture of cutted khipado ,0.5 kg good and 100 gm Ajamo up to 2 days</b>	<b>Analgesic, Anti-inflammatory, Diuretic</b>

**Tree:- Kandho/Khijado**  
*(Prosopis Cineraria)*



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Conjunctivitis (<i>Fulu</i>)</b>	<b>To apply juice of Kandhu plant leave with 100g good twice in a day</b>	<b>Astringent, Demulcent</b>

**Tree:- Kanayo**  
*(Sterculia urens)*



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Dysurea</b>	<b>Give 20 g Kanayo Gundh in 1 lit water up to 10 days</b>	<b>Laxative</b>
<b>Blood deterioration</b>	<b>Give Aathelo Kanayo Gundh</b>	<b>-</b>

**Shrub:- Thor**  
*(Euphorbia nivulia)*



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Tumor</b>	<b>Milk of Thor are keep on tumor up to 5 to 6 days for ripping</b>	<b>Ripening</b>

**Tree:- Khati Aamli**  
*(Tamarandus indica)*



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Prolapse</b>	<b>Give whole night water of 8 to 10 kg Khatti Aamali and 1 kg sugar up to 7 days</b>	<b>Analgesic effect, Anti-inflammatory</b>
<b>Diarrhoea</b>	<b>Give 1 kg Khatti Ambali water which wet at whole night after that give it</b>	<b>Mild laxative, Astringent</b>
<b>Dysurea</b>	<b>1 kg Khatti Aambli wet at whole night and give in next morning</b>	<b>Diuretic</b>
<b>Rop (Retention of Placenta)</b>	<b>Eating the 1 kg Khatti Amali with 2 lit water.</b>	<b>Anti-inflammatory, Analgesic effect</b>



**Tree:- Kesudo**  
*(Butea monosperma)*



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Dysurea</b>	<b>200g Kesuda flowers mix with hot water and give up to 3 days</b>	<b>Cooling and Soothing</b>

## Climber: Kotimda (*Cucumis callosus*)



Diseases/Ailments	Traditional Treatments	Validation with Veterinary Science
Constipation	To cutting the 100g Kotimda and dry with 50g salt and mix with 1 lit boiled butter milk and give it.	Relives stomach pain
Tympany	Cutting the Kotimda (250-300 g) and mix with 100 g salt, 1.5 lit water and make Kavo and given up to 2 to 3 days.	Gastric stimulant
Teat obstruction	Give Kotimda	-
Rop (Retention of Placenta)	Give boiled Kotimda Kochala with butter milk	Cooling action, Diuretic
Prolapse	Give boiled 0.5 kg Kotimada with 0.5 lit butter milk up to 3 days	Cooling action, Diuretic
Indigestion	Cutting of Kotimda and give with butter up to 5 to 7 days.	Astringent, Improve appetite

**Tree:-Kharo neem**  
*(Azadirachta indica)*



Neem (Azadirachta indica) @ www.essentialoil.in

<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Rop (Retention of Placenta)</b>	<b>To crush Neem with onion and make ladu and give it</b>	<b>Emollient</b>
<b>Poisoning</b>	<b>Give crushed Kharo Neem</b>	<b>Emollient</b>
<b>Repeat breeder</b>	<b>Give 0.5 lit Neem oil</b>	<b>Emollient</b>
<b>Arthritis</b>	<b>Give Kharo Neem</b>	<b>Sedative, Analgesic</b>
<b>Diarrhoea</b>	<b>Give 200g liquid of Kharo Neem by orally</b>	<b>Purgative</b>
<b>Maggot Wound</b>	<b>To fire the leave of Neem and make powder and mix with mustard oil and apply on maggot wound.</b>	<b>Insecticide</b>

*Conti...*

<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Cough/dyspepsia</b>	<b>To drink 0.5 lit Neem/Limudee oil up to two time</b>	<b>-</b>
<b>Tympany</b>	<b>Leave and branch of Neem is boiling with water and drink up to 3 to 4 days</b>	<b>Emollient</b>
<b>Ecto parasite infection</b>	<b>Leave and branch of Neem mix with boiling water and given up to 5 to 6 days</b>	<b>Insecticide, Antifungal</b>
<b>Endo parasite infection</b>	<b>Give boiled mixture of Neem leave and branch up to 5 to 7 days</b>	<b>Emollient, Purgative</b>
<b>Milk Fever</b>	<b>To grinding the 1 kg Neem and give juice by orally</b>	<b>Antibacterial</b>
<b>Green Pitto</b>	<b>Give boiled kava of Neem, Good and Salt</b>	<b>Emollient</b>

# Shrub:- Dhatura (*Datura metal*)



Diseases/Ailments	Traditional Treatments	Validation with Veterinary Science
Arthritis	Give leave of Dhatura(1 leave/day up to 7 days)	Analgesic, Antirheumatic

**Climber:- Trumada  
(*Citrullus colocynthis*)**



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Constipation</b>	<b>Give part of Trumada up to 2 to 3 days</b>	<b>Carminative, Astringent</b>
<b>Endo parasite infection</b>	<b>Give Trumada with Khan and Bhusa and give up to 4days</b>	<b>Purgative, Anthelmintic</b>

## Herb:- Mundheri Wal (*Corchorus depressus*)



Diseases/Ailments	Traditional Treatments	Validation with Veterinary Science
Dysurea	Munderi Wal mix with 0.5 lit water and this cool water give up to 2 days	Diuretic

**Tree:- Ganda Baval  
(*Prosopis juliflora*)**



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Dyspepsia/cough</b>	<b>Mixture of 1.5 kg Deshi Baval Chhoda, 1kg Sanchal and 7lit water put in pot and underground in dung up to 7 days, after then 1lit take water and drink to animal and again 1 lit water put in pot and this procedures carry down up to 21-22 days.</b>	<b>Anti-Cough</b>



**Plant:- Kandheri**  
*(Solanum surattense)*



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Rheumatism</b>	<b>Kandheri tree stick boil in water after that two time rubbing of this water up to 15 days.</b>	<b>Antirhumentism and analgesic</b>
<b>Dysurea</b>	<b>Grinding of kandheri stick with water and give it</b>	<b>Diuretic</b>

# Herb:- Gokharu (*Tribulus terrestris*)



Diseases/Ailments	Traditional Treatments	Validation with Veterinary Science
Prolapse	200 g Gokhru (acondi),Kalmi soyro or and soda mix with water and given orally	Anti-inflammatory, Antiseptic, Health tonic

**Herb:- Ghoda wal**  
*(Alternanthera sessilis )*



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Dysurea</b>	<b>To crush the Ghodawal with water and give orally</b>	<b>Antirheumatic</b>
<b>Arthritis</b>	<b>Grinding of Ghodawal with water and give orally up to 7 to 8 days.</b>	<b>Violent purgative</b>

**Herb:- Mamejavo**  
*(Enicostema axillar)*



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Maggot wound</b>	<b>To crush the Mamejavo and its juice apply on infected horn</b>	<b>Insecticide</b>

**Tree:-Mango**  
*(Mangifera indica)*



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Rop (Retention of Placenta)</b>	<b>To fire mango leaf and mix with butter milk and give it</b>	<b>Laxative, Diuretic</b>

**Tree:- Bijora**  
**(*Citrus medica*)**



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Iron injury</b>	<b>Give 1 Bijora/day up to 15 days</b>	<b>-</b>
<b>Constipation</b>	<b>To cut the 0.5 kg Bijora and add 200g salt and give it</b>	<b>Stomachic, Tonic</b>
<b>Tympany</b>	<b>500 to 700 g bijora are given up to 3 days.</b>	<b>Astringent</b>

**Herb:- Kanjaro**  
*(Digera muricata)*



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Dysurea</b>	<b>50 g Kanzar white Gundh dip in water up to one night and next day given with Khan.</b>	<b>Laxative, Urinary discharge</b>

**Herb:- Sangotaro**  
*(Tephrosia purpurea)*



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
<b>Bleeding</b>	<b>Grinding of 2 to 3 Root of Sangotaro tree with 0.5 lit water and boil them and given by orally.</b>	<b>Arrest bleeding ,Healing property</b>



## Tree:- Mitho Neem (*Murraya koenigii*)



Diseases/Ailments	Traditional Treatments	Validation with Veterinary Science
Diarrhoea	Give mixture of leave of Neem and salt	Anti-microbial
Arthritis	Give 250 g Neem oil up to 21 days as alternatively (7 days)	Anti-inflammatory

Herb:- Hazzu  
(*Byttneria herbacea*)



Diseases/Ailments	Traditional Treatments	Validation with Veterinary Science
Rop (Retention of Placenta)	Take a hazzu tree branch and boil with water and mix with ajamo/salt/good/tea bhuki, make a kavo and give to orally.	-

**Climber:- Dhodhiyan Wal**  
*(Pentatropis spiralis)*



<b>Diseases/Ailments</b>	<b>Traditional Treatments</b>	<b>Validation with Veterinary Science</b>
Anoestrus	To give juice of dhodhiyan vel	-

## *Way Forward....*

- **Documentation of such ITK provides tools for networking, storing, visualizing and analyzing information as well as projecting long term trends as that efficient solutions to complex problems are obtained.**
- **Documentation of ITK can help in getting access benefit sharing under CBD.**
- **There is need to mainstream traditional healers in the animal healthcare services by incorporating knowledge of modern veterinary sciences.**

- **Young traditional healers may be trained by local NGOs and Research Institutions.**
- **Validation of several traditional treatments can be done in collaboration with Universities and Research Institutions.**
- **Sharing of indigenous knowledge could be very useful to protect the environment from degradation, sustained production, promote landscape heterogeneity and generate employment opportunities.**

Most importantly....

High Time to respect and recognize  
knowledge system of the Maldharis....

Thanks

