Course	M.Sc. In Botany I M.Sc.
Paper	I MSc: BOT OET-2.4-Medicinal plants and Phytochemistry
Concept	Panchamahabuthas and Tridosha, Sapthadhatu concept.
Presented by	Ms. Meghana B N Guest faculty

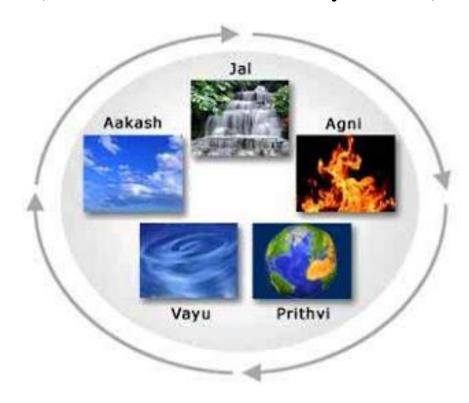
DOSR in Botany

Tumkur University, Tumakuru

Email id:meghanabn61196@gmail.com

# **PANCHAMAHABUTHAS**

- In Ayurveda, it is said that components & functioning of the nature is similar to our body components and its functions.
- Pancha Mahabhuta theory states that everything in the physical creation is composed of these 5 elements.
- The very first element that comes to existence is akash (Ether). It is most expansive and least concreate of all. The next element derived is Vayu (Air) then comes Agni (Fire), then Jala (water) element is formed and lastly Prithvi (earth) element is formed.



- When we say Ether, words like space or a vast openness comes to one's mind. Akash means having a cavity with freedom to move. The tanmatra of ether element is *Shabda* (Sound). Whenever there is compactness of molecules, we get a dull sound on tapping but when there is a cavity or hollow space, we get a resonant sound.
- The qualities of ether element are clear, light, subtle, and immeasurable. Ether element is related with various actions like expansion, vibration, non-resistance. Sensory organ related to ether element is ear as it is hollow and transmits the sound waves.

#### 2. Vayu (Air):

Akash (Ether):

- Air is the great element that shows a sense of movement. Vayu or air initiates & directs motion or movement. Air element keeps the body in constant motion.
- The tanmatra of Air element is *Sparsha* (Touch). The sensory organ related to Air element is skin. Skin is very sensitive for detecting any movement, change in pressure or vibration in subtle form. Any movement against skin can be easily registered.

  Air element is mobile, dry, light, cold and subtle in nature. Its main action is to do any kind of movement.

# 3. Tei (Fire

- Tej (Fire):
  The previous element, Air performs different movements; whenever there is movement, it produces friction and leads to formation of heat or fire. This element is also called as teja or agni. All various
- forms of transformation including digestion of food are carried out by fire element.
  The tanmatra of fire element is *Rupa* (Vision). Perception of light is carries out by this tanmatra. Fire element is hot, sharp, light, dry and subtle.
  Various functions carried out by this element are penetration, digestion of food, and transformation of thoughts, intelligence and perception of light.

#### 4. Jala (Water):

- The fourth element is water. It is also called as jala or Apa. Whenever we think of water qualities like liquidity or fluidity comes to our mind. Water shows important quality of binding e.g. if we see dry soil, we cannot make a ball out of it. But if we add water to the soil, then we can easily make mud balls. This binding nature helps in forming different structures in the body as it binds the 2 cells together. Hence this element is a constructive force.
- The tanmatra of water element is rasa (taste). The sense of taste or the ability to taste depends on the liquidity that exists within in the mouth in the form of saliva. Dry mouth along with dry tongue is unable to give sense of taste. The water element exhibits qualities like cool, liquid, dull soft, and sliminess. Its main actions are cohesiveness and adhesiveness.

#### 5. Prithvi (Earth):

- This is the last element. It is solid, dense, gross and very hard. It is related to all solid and hard structures that show shape e.g. bones, muscles, teeth and nails. The Earth element is responsible for giving structure, shape and strength to the body.
- The tanmatra for Earth element is Gandha (Smell). The small particles of earth are scattered all over the palce gives us the sense of smell. The sensory organ related is nose. Nose is more hard compared to other sensory organs. Qualities of earth element are heavy, dull, dense hard and gross.

Elements	Qualities	Dosha	Taste	Examples of Food
Ether	Think atmosphere, Nothingness, Dry, Light and Clear	Vata	Bitter	Green leafy vegetables, Healing herbs like Turmeric
Air	Think Wind, Dry, Light, Mobile, Cold and Subtle	Vata	Astringent Bitter	Legumes (Beans), Green leafy vegetables, Dried fruits and crunchy fruits like Apple and pears
Fire	Think Fire or The Sun, Hot, Sharp, Dry and Light	Pitta	Sour Salty Pungent	Ginger, Black pepper, Hot pepper, Garlic and all salts
Water	Think Water or Pleghmy substances: Liquid, Cold, Oil,Soft, Porous, Smooth and Mobile	Kapha, Pitta	Astringent salty	Juicy fruits, Water, Milk,
Earth	Think tree trunks- Grounded, Rooted objects- Heavy, Static, Hard and dense	Kapha	Sweet Sour	All grains (eg: Rice,Wheat) Root vegetables(eg: Sweet potatoes, Carrots), fruits

# Tridosha Concept

- The central concept of Ayurvedic medicine is the theory that health exists when there is a balance three fundamental bodily humours or doshas called Vata, Pitta and Kapha. .
- Vata : Vata is the air principle necessary to mobilize the function of the nervous system
- **Pitta**: Pitta is the fire principle which uses bile to direct principle which uses bile to direct digestion and hence metabolism into venous system.
- **Kapha**: Kapha is the is the water principle which relates to mucous, lubrication and the carrier of nutrients into the arterial system.

- In Ayurvedic philosophy, the five elements combine in pairs to form three dynamic forces or interactions called called doshas. Dosha means "that which changes. " It is a word derived from the root " dus, which is equivalent to the English prefix 'dys' such as in dysfunction, dystrophy, etc.
- In this sense, dosha can be regarded as a fault, mistake, error, or a transgression against the cosmic rhythm. The doshas are constantly moving in dynamic balance, one with the others. Doshas are required for the life to happen.
- In Ayurveda Ayurveda, , dosha is also known as the governing principles as every living thing in e is characterized by the dosha.

Dosha Related Elements

• Vata: Air and Ether

• Pitta: Fire and Water

• Kapha: Water and Earth

Effect of Constitution type on Body			
	Vata	Pitta	Kafa
Function of Dosha or controls	Movement breathing Natural urges, Transformation of the	Body heat Temperature Digestion Perception	Stability Energy Lubrication Forgiveness

functions, Sensory

ness secretions,

Emptiness, Fear,

The movement of

Nerve impulses

Waste thought

system

Air

Blood

Food

functions, Ungrounded

Anxiety force nervous

Manifests in living things as

Jelousy Pitta controls the enzymes that digest our food and the harmones that regulate our metabolism

Understanding

Anger, Hunger

Intelligence

Hate

Accumilation Possesiveness Cells which make up our organs and Fluids which nourish a nd

Greed

Attachment

protect them

	Light Irregular Mobile Dry Rough	Light Fluid Subtle Sharp Soft, Clear	Cold Heavy Stable Dense Smooth
Aggressive dosha can result in	Nerve irritation High Bp Gas confusion	Ulcers Harmonal imbalance Irritated skin(acne) Anger	Mucous build up in the sinousand nasal passages, lungs and colon
Predominant during the life stages	Old age, shrink and dry	Teen and adult Harmone changes and transforms into adult	Childhood years Grow and increase in substance of body

Hot

Oily

Chrecteristics

Cold

# Balanced Tridosha means a Healthy Person

Every person (and thing) contains all three doshas. However, the proportion varies according to the individual and usually one or two doshas predominate. Within each person the doshas are continually interacting with one another and with the doshas in all of nature. This explains why people can have much in common but also have an endless variety of individual differences in the way they behave and respond to their environment.

#### **SAPTHADATHU**

#### Sapta- (Seven Body Tissues)

- 1. Rasa -Final Metabolic Juice and Plasma (Digestive System)
- **2. Rakta** Blood (Blood Circulatory System)
- **3.** Mamsa–Muscles and Tendons (Muscular System)
- **4. Med** –Fat
- **5. Majja**-Marrow
- **6. Asthi** Bone(Skeleton)
- **7. Shukra** Semen Fluid (Reproductive System)

#### 1.Rasa Dhatu

Rasa Dhatu relates to body fluids in the body. It includes intracellular and extracellular fluids, plasma in the blood and fluid in the lymphatic system. It also includes all nutrients absorbed in the intestine.

Dosha	kapha dosha
Upadatu	Breastmilk, Menstrual fluid
(waste product)	Sweat, tears, saliva

Rasa Dhatu is responsible for providing nutrition to all cells, tissues, and organs in the body.

### 2.Rakta Dhatu

Rakta Dhatu relates to blood components (RBCs) except plasma in the blood. Rakta is derived from nutrients present in the Rasa.

Dosha	Pitta dosha
Upadatu	Blood vessels, Fascia
Waste product	-

Rakta Dhatu supplies oxygen to all structures in the body. It is also responsible for maintaining strength, health, and happiness. It supports the functions of skin and sense organs.

#### 3.Mamsa Dhatu

Mamsa Dhatu relates to muscular tissues in the body. Mamsa tissue is derived from nutrient in the Rakta in addition to Rasa.

Dosha	Kapha
Upadatu	Muscle, fat and skin
Waste product	Earwax, crusts in the nose, tarter in teeth

The main function of Mamsa Dhatu is to provide strength to the body and protecting internal organs.

#### 4. Meda Dhatu

Meda Dhatu relates to adipose tissues in the body. It is derived from nutrients in Mamsa Dhatu in addition to Rasa, and Rakta.

Dosha	Kapha
Upadathu	Tendons, Joints, Lymphatic vessels.
Waste products	Sweat

Meda Dhatu is responsible for lubrication and providing strength and nutrition to the bones, joints, tendons, and ligaments.

#### 5. Asthi Dhatu

Asthi Dhatu relates to bony and skeletal tissues in the body. It is derived from nutrients in Meda Dhatu in addition to Rasa, Rakta, and Mamsa.

Dosha	Vata dosha
Upadathu	Teeth
Waste products	Nails, hair

The main function of Asthi Dhatu is to protect delicate nervous tissue, brain, spinal cord and support bone marrow.

## 6.Majja Dhatu

Majja Dhatu relates to the Bone marrow and nervous tissue in the body. It is derived from nutrients in the Asthi Dhatu in addition to Rasa, Rakta, Mamsa, and Meda.

Dosha	Kapha
Upadathu	Hair
Wastew products	Oily secretions of skin

Majja Dhatu is responsible for proving nourishment to Shukra Dhatu. All functions of bone marrow, brain, and nervous tissue represent the functions of Majja Dhatu.

#### 7. Shukra Dhatu

Shukra Dhatu relates to the generative tissue in the body. It is derived from nutrients in the Majja Dhatu in addition to Rasa, Rakta, Mamsa, Meda, and Asthi.

Dosha	Kapha
Upadatu	-
Waste products	-

Shukra Dhatu is not only constituents of semen or ovum. It also includes all generative tissues and stem cells in the body, which are responsible for cellular regeneration and reproduction.