

Quote of the month:

“Never underestimate the power you have to take your life in a new direction.”



Thank You
for your support



It has been a wonderful 2023-2024 because of your wonderful support. Wishing you a predictable, profitable, sustainable financial year ahead.



Foreword of
Mr Rajesh.Ch

Director - Nova Agri Group

We are excited to present you with the latest edition of our Technology in Farming newsletter, where we bring you the most recent developments and advancements in the agricultural industry. In this edition, we focus on the transformative effects that technology is having on farming practices, increasing productivity, sustainability, and efficiency.

1. Precision Agriculture:

Precision agriculture is emerging as a game-changer in the farming sector. Using GPS technology, drones, and sensors, farmers can gather precise data on soil conditions, water levels, and crop health. This information enables them to optimize irrigation, fertilizer application, and pest management, resulting in higher yields and reduced resource usage.

2. Automated Farming:

Advances in robotics and automation are revolutionizing farming operations. Robotic farmers can perform tasks such as planting, weeding, and harvesting precisely and efficiently. These systems not only reduce labour costs but also minimize crop damage caused by human error. Furthermore, drones equipped with cameras and sensors are being used for crop monitoring, pest control, and even pollination.

3. Vertical Farming:

With limited arable land and growing urbanization, vertical farming is gaining popularity. By stacking plants in vertically arranged layers, this high-tech farming method allows for year-round production in controlled environments. The integration of LED lighting, hydroponics, and IoT (Internet of Things) systems ensures optimal conditions for plant growth, while reducing water usage and dependency on pesticides.

4. Blockchain in Agriculture :

Blockchain technology is strengthening transparency and traceability within the agricultural supply chain. By recording every transaction and movement of products on an unalterable digital ledger, farmers can provide consumers with accurate information about the origin, quality, and safety of their produce. This technology also facilitates the tracking of foodborne illnesses, reducing potential outbreaks through faster identification and containment.

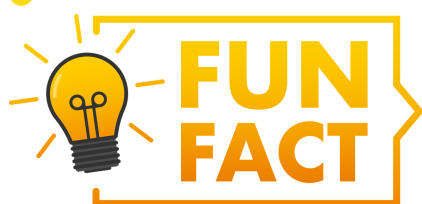
5. Artificial Intelligence:

Artificial intelligence (AI) is enabling farmers to make data-driven decisions in real time. Machine learning algorithms analyze vast amounts of data, including weather patterns, soil quality, and crop performance, to provide insights and predictions. This information can guide farmers in making informed decisions about planting schedules, crop selection, and yield optimization.

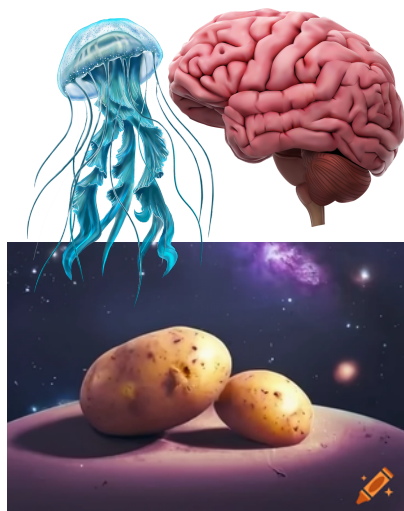
These are just a few examples of how technology is transforming the agriculture industry. Farmers are embracing these innovations to tackle the challenges of feeding a growing global population while promoting environmental sustainability. As always, we remain committed to keeping you informed about the latest technological advancements in farming. Stay tuned for our next edition, where we will delve deeper into the impact of technology on sustainable farming practices.

Best regards,

RAJESH CHERUKURI
Technology in farming



- Snakes don't blink because they do not have eyelids.
- Too much chocolate is poisonous to dogs as it contains theobromine.
- The strongest muscle in the body is the tongue.
- Hippos can't swim or float, and their sweat is pink.
- A jellyfish and a cucumber both are 95% water.
- The human brain is composed of roughly 73% water.
- There are more stars in the universe than grains of sand on the Earth's beaches.
- No number before 1,000 contains the letter A
- Your teeth are as unique as your fingerprint!
- Potatoes were the first vegetable to be grown in space.
- The colour red does not make bulls angry. They are partially colour-blind.
- Hummingbirds are the only birds that can fly backwards and upside down.



Welcome note to CEO sir

We are thrilled to welcome you as our CEO ! Your arrival brings a fresh energy and inspiration to the team. We look forward to working under your leadership and achieving great things together. A warm welcome to our dynamic and forward-thinking Srinivas garu!



Sri Mandalapu Srinivasa Rao garu

D.O.J. : 16-03-2024

Chief Executive Officer



Birthday Wishes

There are two great days in a person's life - the day we are born and the day we discover why. Here is a list of employees, who celebrated their birthday in the month of March.



Brajesh Kumar
Officer - Marketing
02nd March



Ponna Madhusudhana
Trainee Officer - Marketing
02nd March



D Paramesh
Trainee - Manufacturing
05th March



Nethikopula Raghavendar
Officer - Marketing
08th March



Bandaru Lakshmanudu
Trainee - Logistics
08th March



Kalyani
Trainee Officer - Marketing
10th March



Siripurapu Madhuri
Executive - Human Resources
11th March



Rajasekhar Gomasani
Senior Officer - Marketing
12th March



Aruna Munnangi
Helper - Manufacturing
15th March



Bajee Bhimisetty
Executive - I&T
15th March



Phanindra Duddu
Executive - Logistics
19th March



Nitin Sourav
Asst. Area Manager - Marketing
20th March



Narasimhulu Medikurthy
Senior Officer - Marketing
21st March



Kanta Sriram
Officer - Marketing
28th March



Loganathan S
Officer - Marketing
31st March

Nova Field Activities



Do you know about vegan diet?

A vegan diet includes only plant foods—fruits, vegetables, beans, grains, nuts, and seeds. People who follow a vegan diet don't eat any animal foods, including dairy, eggs, and honey.



Section I



Economic Ideas of Kautilya in the Arthashastra

The focal point of the Arthashastra is to maintain a perfect balance between state management and public welfare. Chanakya defines “Economics is the most important aspect as it provides the basis for human existence and survival”. This is almost akin to Karl Marx (18th Century) idea of materialistic interpretation of history where he opines that the economic mode of production shapes the system.

Ia - Role of the State

Chanakya was strongly of the view that the ultimate purpose of economics is to increase the welfare of the king's subjects and says, “The King, the ministers, the country, the fortified city, the treasury, the army and the ally are the constituent elements of the state.” He presented his views on the purpose of the economy and functions of the king before examining the treasury and taxation. Kautilya defines an ideal ruler as “one who is ever active in prosperity and welfare of the people and who endears himself by enriching the people and doing good to them”. In a way, he conceptualized the welfare state and maximization of utility. He stressed good governance which includes economics, regulatory framework, tax, diplomacy, administration, and trade. His approach was holistic as he explained the many critical areas regarding state functioning like national security, relationship with neighbouring states, art of warfare, network of spies, selection of ministers, organizing economy and collecting and distributing state revenues.

Kautilya's four-pronged approach based on “Dharma, Artha, Kama and Moksha” sets the theories of statecraft, monetarism, and a code of civil and criminal laws. Though the essence of the book is generating wealth and prosperity, the book emphasizes more on statecraft as Chanakya believed that only a strong and just king can provide good governance. In brief Artha shastra talks of the following.

- Good governance implies prosperity guided by public administration, where the ruler is responsive to the needs of the subject.
- There should be uniformity in administrative practices as well as competent ministers and officials possessing leadership qualities and intellect along with moral conduct.
- Chanakya talks of a strong and wealthy monarchy (in turn a state with a surplus budget) to fulfil its duties of maintaining law and order, protecting the country from external attack, and ensuring public welfare.
- Chanakya's ideas on maintaining law and order and a strong army were radical to the extent that he gave the king all despotic power to ensure the same. He observed, “By maintaining order, the king can preserve what he already has, acquire new possessions, augment wealth and power and share the benefits with those worthy of such gifts.”

- The state is dominant in the overall system with control of production and property rights but was advised to “carry mining and manufacture, exploit timber and forests, offer facilities for cattle breeding and commerce, construct roads, set up town markets (panyapattana), construct reservoirs (setu), ensure social services and productive enterprises, as building of forts, roads, plantation of colonies, of villages, asylums, orphanage and educational institutions”.
- He advocated that foreign relationships should be strongly based on trade considerations and mitigating attacks. Foreign trade is mutually beneficial for trade partners, but whether Chanakya supports free trade is not certain as he also advocates controlling foreign trade to maintain state monopolies and not to aid potential adversaries.
- According to Kautilya “good governance is a prerequisite for the growth of knowledge. The three Sciences (philosophy, the Vedas and Economics) are for their development.

Ib- Chanakya’s Ideas on Taxation

Chanakya is much more debated on his ideas on tax structure, its collection and distribution. He argues that the tax system plays a critical role in ensuring the economic well-being of society. His views of a just tax system is very much modern in approach. The key ingredients of his tax system were certainty of time, rate and mode of payment, simplicity and standardization.

It was Chanakya’s approach towards maintaining a large and perennial treasury that ensured active trade and commerce, strengthened the revenue base of the empire and enabled the Mauryan ruler to maintain a large army and war apparatus. He was well aware of the scope of trade as a source of revenue and therefore proposed measures like monetization, standard weights and measures, and efficient revenue collection office to extract taxes. As pointed out by Jha and Jha (1997), “Chanakya paid supreme importance to the maintenance of a rich treasury, which favourably affected entire activities of the administration. It was pointed out that the augmentation of the treasury depends mainly on the abundance of harvest (Sasya-Sampat), opulence of industrial production (Prachara-Samirddhi), prosperity of trade and commerce (Panyabatulya) as well as good fiscal management”.

Chanakya quotes “King must collect tax like honeybee, enough to sustain but not too much to destroy”. This represents modern principles of taxation, namely as (i) A tax should be levied once a year, and should not prove burdensome and (ii) Taxes should be levied according to the ability to pay. Sources of Revenue included taxes on land, forests, monopoly and property, customs and excise duties, fines, profits of state, factories and crown monopolies, from manufacture and sale of saffron, salt, intoxicants, trade in horses, fine wool and elephants and port dues, road tolls, fruit and tree tax etc.

We find a lot of similarities in theories followed in modern public finance with respect to tax like the need for price and profit control (progressive tax), high rate of tax on luxury and imported items, moderate rate on common consumption items, (modern principle of indirect tax, GST), use of import tariff to get revenue rather than changing trade patterns (WTO).



Relevance of Chanakya

in Modern Economic Sphere

Nevertheless, the contribution of Kautilya to political economy has been neglected by Western scholars despite the fact that his coverage of this subject was probably the most sophisticated and broadly based one globally until Adam Smith published his *Wealth of Nations* in 1776. (Jha and Jha, 1997). In many respects, Kautilya's ideas were wider in terms of bringing security and dominance of the country through economic routes than earlier western economists. Unlike Physiocrats², who emphasized agriculture as the sole basis for national prosperity, Chanakya along with agriculture gives due importance to industries, commerce and trade. Similarly unlike Mercantilist³, he was well aware of the interdependence of several factors, both economic and non-economic in ensuring prosperity and security of the nations.

His take on corruption is very much practical. He quotes "Just as it is impossible not to taste the honey that finds itself on the tip of the tongue, so it is impossible for a government servant not to eat up". He also says "Just as fish moving under water cannot possibly be found out either as drinking or not drinking water so government servants employed in government work cannot be found out taking money". Therefore, he argues for a strong audit system and efficient and honest administrative staff.

One of Chanakya's famous quotes was "Books are as useful to a stupid person as a mirror is useful to a blind person". Through this, we can interpret the "Capability Approach" forwarded in development economics by the Indian economists and the Nobel laureate Amartya Sen. As Sen argues that it is not the resources (Capacity) that a country (Individual) possesses is important but what are of utmost importance are how these resources and capacity are used and function. Therefore, the functioning of the capacity and judicious use of resource utilization helps a country develop and enriches the life of the people.

The mainstream economists favour a liberal market system for maximization of social welfare and though on this Chanakya stands on the opposite pole, as he supports a strong absolute monarchy, but the end objective was to safeguard the country and its citizens. He mentions an implicit social contract between the king and the citizens that according to him is the basis of taxation. He was radical in his approach when he said that if the king failed to protect his citizens, the people could revolt, behead the king or not pay the tax and even ask for remissions of the tax amount paid.

Kautilya's *Arthashastra* is one of the most comprehensive treatises on the state's role in economic development. Several of his ideas were later advocated by economists like Mrydal⁴ and Lewis⁵ who have on different occasions argued for the need for the state to maintain public services, influence the distribution of income, control the quantity of money, break social chains and create psychological, ideological, social and political situation necessary for economic development. His ideas on creating basic infrastructures like roads and waterways to facilitate market and trade support modern economic views in terms of the role of infrastructure in economic development.

The historical importance of the book lies in its detailed account of the ancient Indian economy. Some of the modern economic principles like asymmetric information, principal-agent problems, canons of taxation, the importance of national accounting, trade based on comparative advantage, role of the state in providing social security can be extracted from ideas mentioned in *Arthashastra*

It can be concluded that Kautilya's *Arthashastra* is one of the best treatises regarding how an ideal state should function. Though written almost 2000 years ago, Chanakya's take on moral philosophy, political and economic governance is still relevant.



Inspiration Voyage

Aarti Dogra, IAS

Meet **Aarti Dogra**, a 3.5-foot-tall IAS officer who overcame height stereotypes and cracked the UPSC exam. Aarti Dogra is an inspiring female IAS officer who has shattered all stereotypes about height and succeeded in cracking the UPSC exam on her first attempt. Born in Dehradun, Uttarakhand, Aarti is just 3.5 feet tall, but her small stature did not stop her from pursuing her dreams. Despite facing discrimination and being taunted for her height since childhood, Aarti's parents stood by her and supported her education.

Aarti completed her early education at Bright Land School and graduated in Economics from Lady Shri Ram College, Delhi University. During her studies, she met Manisha Pawar, who was an IAS officer and was inspired by her to clear the UPSC exam. With her hard work and dedication, Aarti cleared the civil services exam on her first attempt and became an IAS officer in the Rajasthan cadre.

As an IAS officer, Aarti has been part of several people-centric initiatives she organised wheelchairs and vans for the disabled in all constituencies so they could vote as the collector of Ajmer and as a result, 17,000 differently-abled people were able to cast their votes. Her achievements and contributions have made her an inspiration for many people who struggle to find the light at the end of the tunnel.

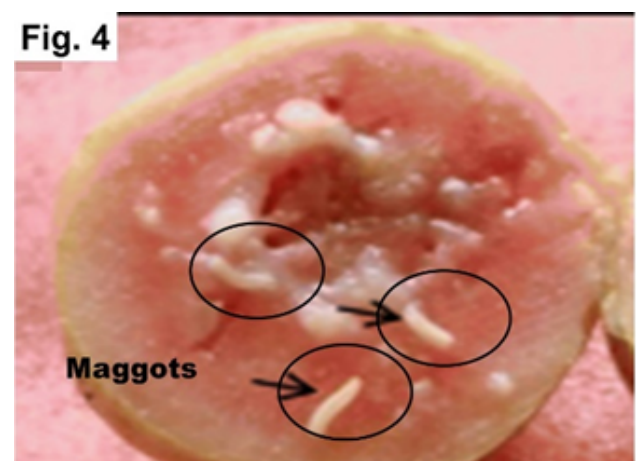
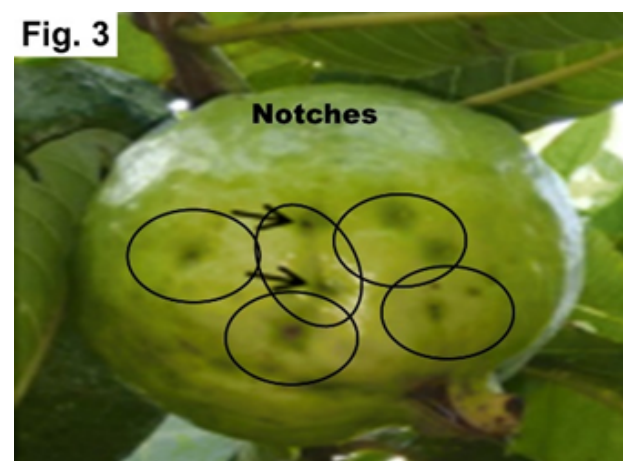
Aarti's story teaches us that every person will face challenges in life, but we must accept them and face them with determination and perseverance. Discrimination and stereotypes should never hold us back from achieving our dreams. With hard work and dedication, we can overcome any obstacle and make a difference in the world

Fascinating World of Insects – Fruit Flies

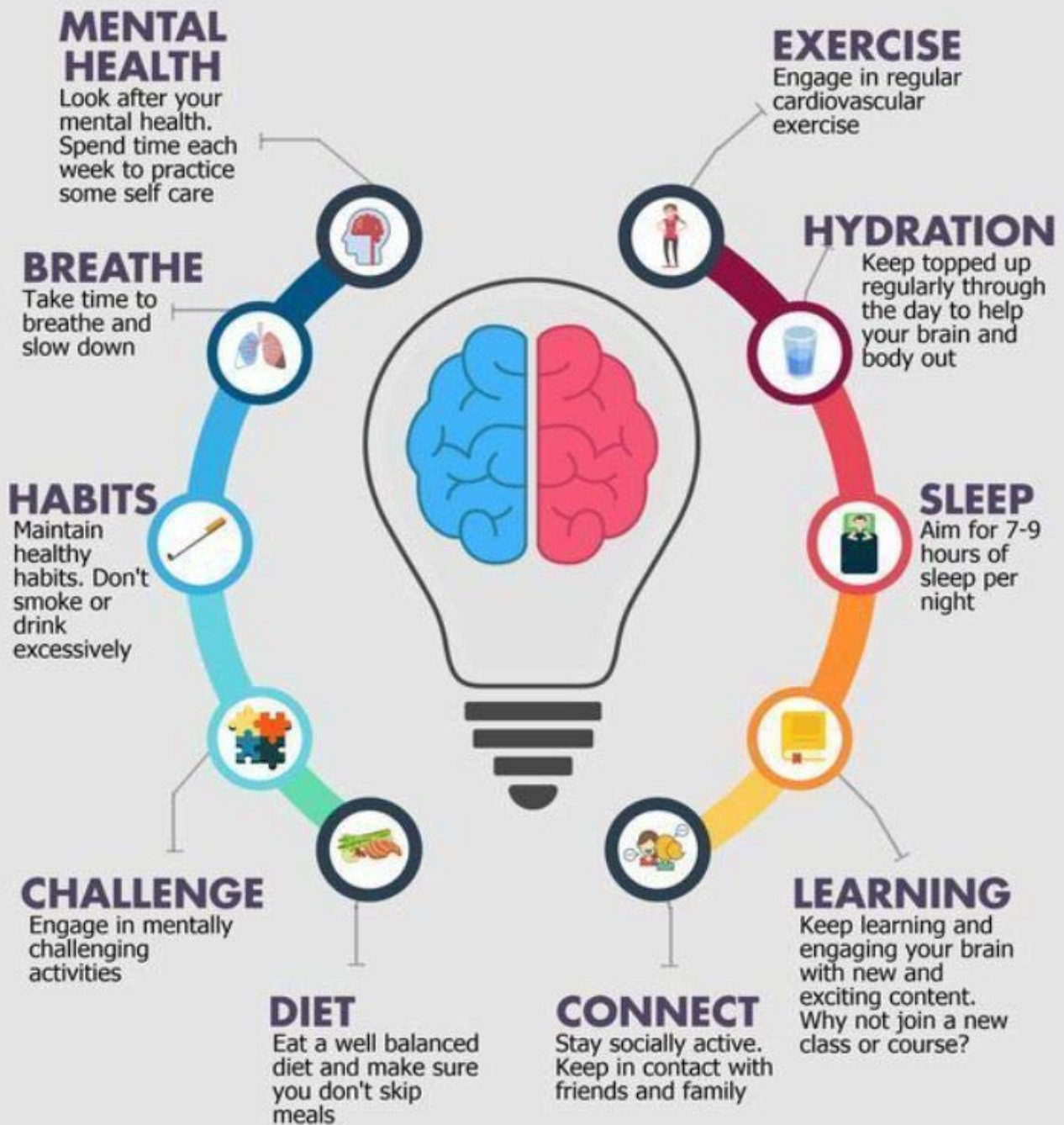
Readers.....you might have experienced watching the insect larvae moving in some of Guava, Mango, Water melon, etc. fruits or Bitter gourd, Bottle gourd, Ridge gourd, Snake gourd, etc. vegetables when you tried to eat them or cut them for preparing curry. These larvae are nothing but 'FRUIT FLY' larvae. In Diptera Insect Order, the larvae are called 'Maggots' 'Fruit flies' belong to the Insect Order 'Diptera' i.e. insects having only two wings (one pair of Forewings) (Di-Two; Ptera-Winged), which are known as 'True flies'. In general, adult insects have two pairs (or four) of wings (one pair of Forewings and one pair of Hindwings). In Dipteran 'Flies', Hindwings are modified into specialized process like structures known as 'Halteres' Halteres are used for balancing purpose during flight (flying).



Now you might wonder how these 'fly maggots' ended up in the fresh fruits and vegetables that we want to consume. Adult female fruit fly (Fig. 1) lays its eggs inside unripened fruits & vegetables using its specialized needle-like body part known as 'Ovipositor' (Fig. 2). The sites of egg deposition on infested fruits appear notched/depressed with dark colour (Fig. 3). These notches on fruits are an indication of Fruit Fly egg deposition. Upon hatching from eggs, the maggots, which are without a clear head (Acephalous) and legs (Apodous) start eating the developing tissue of fruit using their hook-like mouthparts (Fig. 4). In this process, they release excreta thereby making the infested fruit/vegetable unfit for human consumption.



10 WAYS TO KEEP YOUR BRAIN HEALTHY



Thank You