

GK & Animal Science capsule:

Founder of:

- Google = Larry Page and Sergey Brin
- Facebook = Mark Zuckerberg
- Instagram= Kevin Systrom
- Microsoft = Bill Gates and Paul Allen
- Youtube = Steve Chen, Chad Hurley, and Jawed Karim
- Twitter= Jack Dorsey, Noah Glass, Biz Stone, and Evan Williams
- Telegram= Pavel Durov
- Gmail= Paul Buchheit

CEO of:

- Apple= Tim Cook
- Google= Sundar Pichai
- Amazon= Andy Jassy
- Youtube= Susan Wojcicki
- Instagram= Kevin Systrom

Founder of Popular Mobile games:

- PUBG= Brendan Greene
- Garena free fire= Forrest Li
- Supercell= Ilkka Paananen
- Minecraft= Markus Persson

National Research Programs under NARC

- National maize research program = Rampur, Chitwan
- National Potato research program = Khumaltar, Lalitpur
- National Rice research program = Baninia, Dhanusha
- National Wheat research program = Bhairahawa, Rupandehi
- National Sugarcane research program = Jitpur, Bara

- National Jute research program = Itahari, Sunsari
- National Citrus research program = Paripatle, Dhankuta
- National cow research program = Rampur, Chitwan
- National Ginger research program = Kapurkot, Salyan
- National Bovine research program = Khumaltar, Lalitpur
- National Sheep and goat research program = Jumla
- National Tobacco research program = Belachapi, Janakpur
- Hill crop research program = Kavre, Dolakha
- National grain legume research program = Khajura, Nepalgunj
- National oil seed research program = Nawalpur, Sarlahi

Some important conversions:

- 1 hectare = 10,000 m² = 30 kattha = 1.5 bigha = 20 ropani
- 1 bigha = 20 kattha
- 1 kattha = 20 dhur
- 1 bigha = 13.31 ropani
- 1 ropani = 16 aana = 508.5 m²
- 1 kg = 2.2 pound
- 1 pound = 16 ounce
- 1 inch = 2.54 cm
- 1 km = 0.62 mile
- 1 meter = 3.2808 feet

Some Agricultural Revolutions:

- Green Revolution: Foodgrains
- Red Revolution: Meat & Tomato production
- Black Revolution: Petroleum production
- White Revolution: Milk and dairy production
- Silver Revolution: Egg & poultry production
- Round Revolution: Potato production
- Yellow Revolution: Oilseed production
- Grey Revolution: Fertilizer revolution
- Blue Revolution: Fish production
- Silver fiber Revolution: Cotton production
- Golden fiber Revolution: Jute production

Nobel prize winners 2021

- ❖ **Physics:** Syukuro Manabe, Klaus Hasselmann, Giorgio Parisi
- ❖ **Chemistry:** Benjamin List, David W.C. MacMillan
- ❖ **Medicine:** David Julius, Ardem Patapoutian
- ❖ **Literature:** Abdulrazak Gurnah
- ❖ **Nobel Peace Prize:** Maria Ressa, Dmitry Andreyevich Muratov
- ❖ **Economics:** David Card, Joshua D. Angrist, Guido W. Imbens

Soil composition:

Solid-phase:

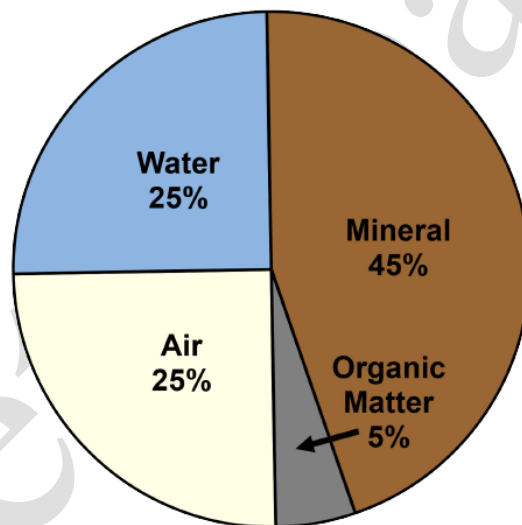
- Mineral matters: 45%
- Organic matters: 5%

Gaseous phase:

- Soil air: 25%

Liquid phase:

- Soil Water: 25%



Essential plant Nutrients: There are 17 essential elements.

- 1) Structural elements: C, H, O
- 2) Macronutrients:
 - Primary macronutrients: N, P, K
 - Secondary macronutrients: Ca, Mg, S
- 3) Micronutrients: Mn, Cu, Ni, Zn, Br, Mo, Cl, Fe

(@ म्यान को नि जि ब्रो मो क्लो फि)

Nutrient Deficiency Diseases:

Zn: White bud in maize and Khaira disease of Rice

B: Cracking of mango and litchi and dead heart of cauliflower

Mo: Whiptail in cauliflower

Cl: Hollow heart and brown center in potato

N P K content in fertilizers:

Plant uptake nitrogen in the form of N, Phosphorus in the form of P_2O_5 , and Potassium in the form of K_2O .

Fertilizer	Nutrient content		
	% N	% P	% K
Urea	46	-	-
DAP (Diammonium Phosphate)	18	46	-
MoP (Muriate of Potash)	-	-	60
Ammonium Sulphate	20-21	-	-
SSP (Single Super Phosphate)	-	16	-
DSP (Double Super Phosphate)	-	32	-
TSP (Triple Super Phosphate)	-	48	-
Complexal	20	20	-

Breeds of Farm animals and birds:

Popular Breeds of cattle:

Exotic breeds:

- Holstein Friesian
- Jersey
- Brown Swiss
- Ayrshire

(@ Ex का होलसे जेरिसा Brown चिज आएस)

Indian cattle:

- Sahiwal
- Red Sindhi
- Haryana

Indigenous breeds:

- Lulu
- Achhami
- Siri

Popular Breeds of Buffalo:

Exotic breeds:

- Murrah
- Nilli Ravi
- Jaffarbadi
- Surti
- Mehsana

(@ मुला निल्लि रवि जबर्जस्ति सुर्ति माडनं)

Indigenous breeds:

- Lime
- Parkote
- Gaddi

Popular breeds of Goat:

Exotic breeds:

- Jamunapari
- Sannen
- Barberi
- Black bengal
- Beetal
- Toggenberg

(@जमुना सानिले बारभरी Black B को बोटल टोकिन)

Indigenous breeds:

- Terai goat
- Khari
- Sinhal
- Chyangra

Popular breeds of Pig:

Exotic breeds:

- Hampshire
- Yorkshire
- Landrace
- Duroc

Indigenous breeds:

- Chwanche
- Bampudke
- Hurrah
- Pakhribas black

Popular breeds of Sheep:

Exotic breeds:

- Merino
- Border Leicester
- Rambouillet
- Polworth
- Cheviot

Indigenous breeds:

- Bhyangulung
- Baruwal
- Kage
- Lampuchhre
- Dhorel

Popular breeds of Poultry

Exotic breeds:

- New Hampshire
- Rhode Island Red
- Plymouth rock
- Brahma
- Cochin
- Leghorn
- Minorca
- Cobb 100, 500
- Lohmann

Indigenous breeds:

- Sakini
- Ghatikhuile
- Pwankhulte

Terminologies used in Agriculture:

- ✓ Castration: removal of / making the testes non-functional by cutting the spermatic cord
- ✓ Spaying: The process of removal of the ovaries
- ✓ Colostrum: first milk given by females (up to 3 days)
- ✓ Dewlap: a fold of skin in the neck of cattle
- ✓ Jack: an uncastrated male donkey
- ✓ Jenny: a female donkey
- ✓ Boar: an uncastrated adult male pig used for breeding
- ✓ Weaning: separating a young animal from its mother
- ✓ Drenching: Oral administration of fluid for removal of internal parasites
- ✓ Identification of farm animals is done by tagging, tattooing, numbering, branding, ear notching, coloring, etc.
- ✓ Gestation period: the period between the date of fertile service and the date of calving
- ✓ Maiden heifer: an adult female that has not been allowed to breed
- ✓ Free-martin: when twin calves of different sexes are born, the female is generally sterile. Such a female calf is called free-martin.
- ✓ Grooming: the practice of brushing or cleaning the coat of animals
- ✓ Shearing: removal of sheep's wool
- ✓ Dehorning: the process of removal of the horns of livestock
- ✓ Debeaking: the process of partial removal of the beak of poultry
- ✓ Docking: a process of shortening the tail of sheep by using a docking knife

No. of teats in:

- Cattle: 2 pair
- Buffaloes: 2 Pair
- Goat: 1 pair
- Horse: 1 pair
- Swine: 7 Pair
- Dog: 5 pair

You Deserve To Know It:

- Total population of Nepal(2078) = 2,91,92,480
- Madan Puraskar Winner 2077: Bhagiraj Innam (लिम्बुवान्को ऐतिहासिक दस्तावेज संग्रह)
- Jagdamba Shree Puraskar 2077: Bhairab Bahadur Thapa
- Madan Puraskar Winner 2076: Chandra Prakash Baniya (महारानी)
- Jagdamba Shree Puraskar 2076: Shanti Thalal
- Satya Mohan Joshi has won Madan Puraskar for three times.
- Miss Nepal 2021: Sujita Basnet
- Miss Nepal 2020: Namrata Shrestha
- Miss universe 2021: Harnaaz Sandhu (India)
- Best FIFA Men's player for 2021: Robert Lewandowski
- Oscar-winning Best picture 2021: Nomadland
- Best actor in a leading role: Anthony Hopkins (The Father)
- Best Actress in a leading role: Frances McDormand (Nomadland)
- Oscar-winning best picture 2020: Parasite
- NMB bank receives 'The Bank of the Year 2021.' (for the fourth time in five years)
- Time's person of the year 2021: Elon Musk
- Nepal scores 33 out of 100 & is in 117th position in the latest corruption report published by Transparency International.
- The rank of Nepal in Internet Speed Ranking: 107th
- Elon Musk, the co-founder and CEO of Tesla, is the richest person in the world with a \$269 billion net worth.
- Area of Nepal: 1,47,516 sq.km.
- First electric motorcycle made in Nepal: Yatri
- Height of Mt. Everest: 8848.86 m or 29032 feet
- Nirmal Purja climb all 14 mountains over 8,000 m in 6 months 6 days & set up a new world record.
- The new map of Nepal was published on May 20, 2020, which included Lipulekh, Kalapani, and Limpiyadhura.

- Earthquake in 12th Baisakh 2072 (11:56 am, 7.8 Richter scale, Epicentre: Gorkha)
- The Lunar New Year 2022 marks the start of Year of tiger.
- Date when new height of mt everest was delcared:8 December 2020

Miscellaneous:

- Tree of Paradise/ wisdom: Banana
- King of fruits/ Bathroom fruit: Mango
- Queen of fruits: Mangosteen
- Poor man's apple: Guava
- Poor man's meat: Soyabean
- King of vegetables: potato
- King of temperate fruit: Apple
- King of flower: Dahlia
- Queen of flower: Gladiolus
- King of spice: Black pepper
- Queen of spice: Cardamom
- King of vegetables: Brinjal



Mangosteen fruit

Points to Remember:

- Wheat is the highest-produced cereal in the world.
- Rice is the highest-produced cereal in Nepal.
- The red color of the apple is due to theocyanine.
- Citrus has maximum production in Nepal.
- Guava is called the apple of the tropics.
- Maize is called the queen of cereals.
- Rose signifies love and Lily signifies Purity.
- Zein is the special protein in maize.

- Rice is the most cultivated crop in Nepal and Wheat is the most cultivated crop in the world
- Date palm is the oldest fruit.
- Topiary: The art of shaping plants in a desirable form.
- Cardamom production is highest in Nepal in the World.
- Sindhu is the seedless variety of Mango.
- Fruit cracking is the main problem in litchi due to Boron deficiency.
- Bonsai: The art of growing miniature plants.
- Cotton fiber is called white gold.
- The grape has maximum production in the world.
- The red color of the tomato is due to lycopene.
- The bitter taste of bitter gourd is due to momordicine.
- Agriculture is derived from Latin words "Ager" which means field and "cultura" which means cultivation.
- Dr. Norman E. Borlaug is the pioneer of the green revolution and was awarded with Nobel Prize in 1970.
- GA induces maleness in flowers.
- Inarching is most commonly practiced in mango.
- There are 12 textural classes of soil.
- The hexagonal system of planting accommodates 15% more plants than the square system.
- The Quincunx system of planting accommodates almost twice the number of plants as compared to the square system of planting.
- The Contour system of planting is done in hills.
- Climacteric fruits ripen even after harvesting. Eg. Mango, banana, avocado, etc.
- Non-climacteric fruits do not ripen after harvesting. Eg. Citrus, grapes, apple, litchi, etc.

Important days:

- World Food Day: 16th October
- World Environment Day: 5th June
- Earth Day: 22nd April

- World Water Day: 22nd March
- National Rice Day: 15th Ashad
- NARC Day: 8th May
- World Soil Day: 5th December
- AFU Day: Ashar 3 (17th June)
- IAAS Day: Bhadra 5
- Red Cross Day: 8th May
- World AIDS Day: 1st December
- Women's Day: 8th March
- World TB Day: 24th March
- Republic Day: Jestha 15
- Loktantra Diwas: Baishakh 11
- International Biodiversity Day: 22nd May
- World Population Day: 11th July

Scientific names:

- Apple : *Malus pumila*
- Pineapple: *Ananas comosus*
- Banana: *Musa paradisiaca*
- Guava: *Psidium guajava*
- Grape: *Vitis vinifera*
- Jackfruit: *Artocarpus heterophyllus*
- Litchi: *Litchi chinensis*
- Pear: *Pyrus communis*
- Papaya: *Carica papaya*
- Pomegranate: *Punica granatum*
- Tomato: *Lycoperscium esculentum*
- Cotton: *Gossypium sp.*

Edible parts:

- Mango, Papaya – Mesocarp
- Litchi- Fleshy aril
- Apple -Thalamus
- Cabbage- Head
- Cauliflower Inflorescence bud
- Coconut Liquid endosperm
- Citrus -Juicy placental hair
- Pineapple -Soros

Agricultural Organizations:

- NARC: Nepal Agriculture Research Council, Kathmandu
- CIMMYT: International Maize and Wheat Improvement Centre, Mexico
- IRRI: International Rice Research Institute, Philippines
- IARC: International Agriculture Research Centre
- IAAS: Institute of Agriculture and Animal Science

Organization and Headquarters:

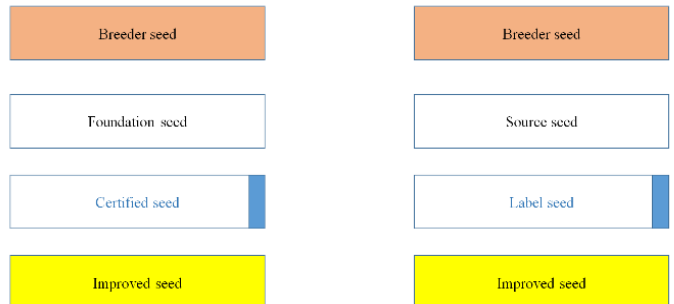
- FAO(Food and Agriculture Organization):- Rome, Italy
- WHO(World Health Organization):- Geneva, Switzerland
- IRRI(International Rice Research Institute):- Manila, Philippines
- ADB:-Manila, Philippines
- CIMMYT(International Maize and Wheat Improvement Center):- Mexico

Full forms:

- DOTS: Directly Observed Treatment Shortcourse
- AIDS: Acquired Immune Deficiency Syndrome
- FIFA: Federation of International Football Association
- TOEFL: Test Of English as a Foreign Language
- ISSS: International Soil Science Society
- USDA: United States Department Of Agriculture
- NASA: National Aeronautics and Space Administration
- LASER: Light Amplification by Stimulated Emission of Radiation
- UFO: Unidentified Flying Object
- PAR: Photosynthetically Active Radiation
- PPFD: Photosynthetic Photon Flux Density
- LCP: Light Compensation Point
- LSP: Light Saturation Point
- GDD: Growing Degree Days
- IPM: Integrated Pest Management
- INM: Integrated Nutrient Management

Tag used in seed certification:

- Breeder seed: Brown tag
- Foundation Seed: White tag
- Certified seed: White tag with blue band
- Improved seed: Yellow tag



Agronomical classification of crops:

1. Cereal crops: rice, wheat, maize
2. Pseudo-cereal crops: buckwheat, amaranthus
3. Grain legumes: chickpea, lentil
4. Oilseed crops: sunflower, rapeseed
5. Fiber crops: jute, cotton
6. Sugar crops: sugarcane, sugar beet
7. Narcotic crops: tobacco
8. Tuber crops: potato, yam
9. Beverage crops: tea, coffee, barley
10. Spice and condiments: garlic, ginger, turmeric

Some varieties of crops:

- Rice (*Oryza sativa*) : Loktrantra, vithila, Hardinath-1, Bindeshwori, Mallika, Chaite-2, 5abitri, Kumal-2, Radha
- Wheat (*Triticum aestivum*): Pasang Ihamu, Gautam, Birikuti, Anuapurn, Rohini, ant, Eiava
- Maize (*Zea mays*) : Khumal yellow, Rampur composite, Rampur-1, Manakamana-1, Arun, Gaurav hybrid
- Barley (*Hordeum vulgare*): Soluwa, Galt, Bonus, Ketch Finger millet (*Eleusine crocana*)-Dalle-1, Okhale-1, Kavre
- Chickpea (*Cicer arietinum*): Sita, Kalika, Kosheli, Dhanus, Trishul
- Cowpea (*Vigna unguiculata*): Aakash, Surya, Prakash
- Lentil (*Lens culinaris* or *Lens esculenta*): Sindur, Simrik Simal, Sikhar, Sagun
- Mustard (*Brassica campestris*): Bikash, Unnati, Pragati, Lumle-1
- Cauliflower (*Brassica oleracea var. botrytis*): Ktm local, Dolpa snowball
- Tomato (*Solanum lycopersicum*): Srijana, Roma, Pusa ruby

Varieties of Fruits:

- Mango: Bombay green, Maldah, Amarpali, Chausa, Mallika
- Apple: Golden delicious, Red delicious. Red june, Crispin,
- Guava: Lucknow-49, Allahabadh safeda
- Litchi: Desi, Early bedana, Mazzafarpur
- Banana: Harichal, Malbogh, William hybrid
- Papaya: Washington, Honeydew, Solo
- Coffee: Arabica, Robusta
- Rose: Dutch HT, Dutch gold, Happiness, Blue moon

About AFU:

- Establishment of AFU: 2010 in Rampur, Chitwan
- Area of AFU: 280 hectares
- Present chancellor: Prime Minister
- Present V.C : Prof. Punya Prasad Regmi
- Registrar: Prof. Shradha Thapaliya
- Dean of AFU (Ag): Prof. Jay Prakash Dutta

COVID-19 Information:

- 1st case of coronavirus in Nepal was confirmed on 23rd Jan 2020.
- 1st death due to coronavirus occurred on 14th May 2020.
- 1st death by a coronavirus in Nepal: Sabirti Timilsina (1st Jestha 2077)
- Total 8 vaccines are approved in Nepal for use against COVID-19.
- COVID-19 was first isolated in Wuhan, China.
- The official name COVID-19 was issued by WHO on 11th February 2020.
- COVID-19 updates, Nepal: (Updated on: 12th March 2022)

Total cases: 9,77,878 Total infected: 5,050 Recovered: 9,60,878 Deaths: 11,950

Prime Minister Agricultural Modernization Project (PMAMP):

- Duration of project: 2073 to 2082. (10 years)
- The minimum area for the pocket is 10 hectares. (2100 pockets).
- The minimum area of the block is 100 hectares. (2 blocks in each district)
- The minimum area of the zone is 500 hectares. (30 zones)
- Minimum area of superzone is 100 hectare. (10 superzones)

Superzones	
District	Crop
Dadeldhura	Potato
Kailali	Wheat
Jumla	Apple
Bara	Fish
Dang	Maize
Kaski	Vegetables
Kavre	Potato
Sindhuli	Junar
Dhanusha	Fish
Jhapa	Rice

Sports:

Three Nations Cup:

- Organized by All Nepal Football Association (ANFA)
- Winner-Nepal, final goal score 2 -1
- Runner up – Bangladesh
- Last-Kyrgyzstan
- Biraj Maharjan has retired from International
- Football(Most capped Nepali footballer)

Sanjog Rai - Man of the match of the final match

- Asian Games: 2030 in Qatar, 2034 in Saudi Arabia
- Indian Premier League (IPL)
Opening 9th April 2021 between Mumbai Indians(M.I.)
and Royal Challengers Bangalore(R.C.B)
- Upcoming Football WorldCup is going to be held from 21 November 2022- 18
December 2022AD
- FIFA player 2019 = Lionel Messi
- Hungary won The Olympic Gold Medal in football 3 times.
- Ballon d'Or winner 2021 =Lionel Messi
- Ballon d'Or female winner 2021=Alexia Putellas
- FIFA WorldCup was first inaugurated in 1930.
- Uruguay hosted the first football WorldCup.
- FIFA was founded in France.

Political GK:

- On 18th July 2021, the new Prime Minister of Nepal, Sher Bahadur Deuba won a vote of confidence in the country's Parliament days after the Supreme Court had reinstated the legislature which was dissolved in May.
- Ambassador of Isreal to Nepal = Hanan Goder
- Finance Minister of Nepal = Janardan Sharma

About MCC:

- Full form of MCC: Millennium Challenge Corporation
- Nepal's parliament on Sunday(2022 February 27) approved the Millennium Challenge Corporation (MCC).
- MCC mainly works on the project of roads and electricity according to the agreement.