



India needs to adopt GM crops soon to increase production and lower costs, while ensuring safety: Experts



L-R: Mr. Naveen Pasuparth, Treasurer, CLFMA of India, Dr. Vibha Ahuja, CGM-BCIL, Dr. Lalitha Gowda, Chair, Scientific Panel on GM-Foods, FSSAI, India; Member, GEAC and Former Chief Scientist, CFTRI, Mysore, Dr. M.S. Sheshshayee, Professor and Head, Dept of Crop Physiology, UASB, Mr. P.S Nanda Kumar, Honb;e Past President, KPFBA, Dr. G. Deve Gowda, President, IVPI, Dr. N. K. S. Gowda. Principal Scientist. ICAR-NIANP, Dr. Sushanth Rai. B, President – KPFBA and Mr. Inayath Ulla Khan, Executive Secretary - KPFBA

With adoption of genetically modified (GM) crops in India having hit a roadblock, Dr. Lalitha Gowda, who is the Chair of the Scientific Panel of GM-Foods, FSSAI and member of GEAC (Genetic Engineering Appraisal Committee) said any regulation that needs to be implemented has to be first safe for human and animal consumption.

She was participating in a panel discussion on ‘Making livestock industry competitive: way forward’, organized jointly by the Karnataka Poultry Farmers and Breeders Association (KPFBA); the Compound Livestock Feed Manufacturers’ Association of India (CLFMA); the Biotech Consortium India Ltd; and Animal Nutrition Society of India. Thorough protocols need to be followed. Dr. Gowda said that there are well laid out protocols in line with Codex Standards and they take time, not just in India, but in the developed parts of the world. While agreeing that GM crops had benefits, she said they had to go through proper appraisals before going commercial. Regarding processed GM derivatives for feed, she said that a simplified procedure is considered sufficient as they are not living modified organisms.

Presently in India, only Bt Cotton is allowed as GM crop, while brinjal and mustard are awaiting approvals for quite some time now.

Demand for protein will increase exponentially

Mr. Neeraj Kumar Srivastava, Chairman of Compound Livestock Feed Manufacturers Association of India (CLFMA) said India would be at the centre of increased meat demand and close to 50% meat is going to be produced in Asia, thus opening up enormous opportunities for the livestock sector. India is number one in milk production and millets, number two in wheat and number four in broiler production, however, the protein demand and supply to the growing population is inadequate.

India, he said, needs 25 to 30 million metric tonnes of protein of which only about 47% is supplied through internal sources. As there are limitation in increasing yield of agricultural crops, he stressed for need for GM crops to increase productivity and meet demand. India’s per capita availability of livestock is low and it has one of the lowest protein consuming population. The demand for protein will continue to increase in view of the expanding middle class, with changing lifestyle patterns, urbanization and other consumer driven market trends. Though poultry numbers have grown more than 500 per cent in the last couple of years, there is need to increase output.

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The input cost for livestock has significantly gone up and this, he said, is a matter of concern. While stating that there is urgent need to reduce input costs, he added that in 2020 feed production saw a degrowth of 6% and there was movement towards regaining volumes this year. Demand for feed is going to go up considerably. India added 4.5 mmt last year with feed production between 39 and 43 mmt, highest in the world. It is hoped to touch 55 mmt by 2026 and to meet this demand india needed new technologies. To meet the increased protein demand there was need to increase productivity per acre and that GM crops was the best bet. "There are so many myths about GM crops which needs to be dispelled. The bottlenecks should be removed as GM crops will be of help to both farmers and the sector. The Government of India, he said, has been very supportive.

### GM crops can overcome shortage of feed

Dr. K.C.Veeranna, Vice Chancellor, Karnataka Veterinary, Animal and Fisheries Sciences University said cost of production of livestock is going up every day as the major contributor is feed. The biggest challenge is to reduce cost of production and make products which are rich in protein easily available. In this background, only GM crops and derivatives could help overcome shortage of feed. Stating that fodder resources were limited as land available for fodder is decreasing, there was need to utilize technologies to meet animal nutrition needs.

Dr. S.Rajendra Prasad, Vice Chancellor, University of Agricultural Science, Bangalore, said with India's population growing at a fast pace, it was urgent to focus on nutritional security of both human beings and animals. India produces 308 million metric tons of foodgrains and 329 mmt of vegetables and fruits, but this is going to be highly insufficient to meet the demands of growing nation.

### Dispelling myths about safety of GM crops

Dr. Vibha Ahuja, Chief General Manager, Biotech Consortium India Limited, said it was necessary to permit the use of GM crops and its derivatives as it would help in increasing the availability of feed and feed ingredients in India. It is imperative to make available sufficient low cost and good quality feed for sustainable growth of poultry, dairy, aqua and other livestock sectors.

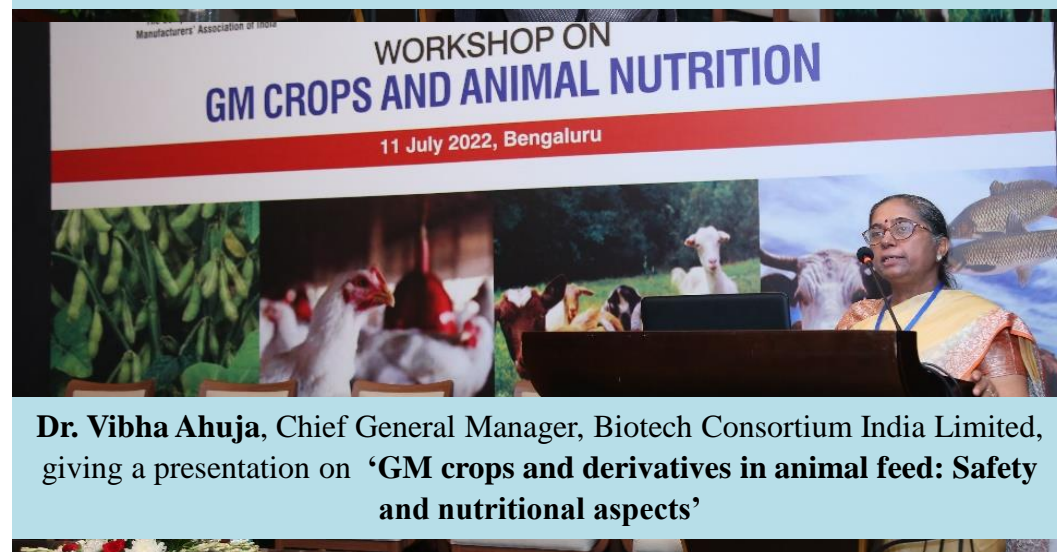
#### Inauguration of the Workshop by lighting lamp



**Dr. Sushanth Rai. B** – President of the host organisation – KPFBA delivering welcome address.



**Mr. Neeraj Kumar Srivastava**, Chairman, CLFMA of India, speaking on 'Growth of livestock industry: Feed demand and availability'



**Dr. Vibha Ahuja**, Chief General Manager, Biotech Consortium India Limited, giving a presentation on 'GM crops and derivatives in animal feed: Safety and nutritional aspects'



Panel Discussion- Session-1: [ L-R: **Dr. Vibha Ahuja**, CGM-BCIL, **Mr. Neeraj Kumar Srivastava**, Chairman-CLFMADr. **P.S Mahesh**, Director (I/C), CPDO&TI, **Dr. K.C Veeranna**, Vice Chancellor -KVAFSU. **Dr. S.Rajendra Prasad**, Vice Chancellor, University of Agricultural Science, Bangalore and **Dr. Sushanth Rai.B**, President, KPFBA



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On the many myths that surrounded GM crops, Ms. Ahuja reiterated that reviews by major scientific bodies and regulatory agencies have confirmed that GM crops and the food derived from them are safe. The only difference between the GM crops and their non-GM counterparts is the proteins expressed by inserted genes. The safety of the consumption of these proteins is established based on biological properties and tests of digestibility, acute toxicity and allergenicity. Once this is done and safety established then the compositional equivalence confirms that the GM crop / food is similar to corresponding non-GM which has been used / consumed traditionally for generations and hence no long term effects are expected to be seen based on this history of safe human use.

### India can export to Gulf having logistical location advantage

Mr. Naveen Pasupathy, Treasurer, CLFMA of India said presently corn and soya have major inputs controlling poultry costs. Yield per acre of both crops is too low and GM is the only solution to increase yield as well as income for farmers. Excessive usage of pesticides, herbicides etc have been affecting genetic capabilities of animals which feed on such crops.

He said that there was enormous potential for exports if we could get sufficient and cost effective inputs made available through GM technology. He talked about how India was just four hours away from Gulf and could supply easily, being logistically located hub, unlike Brazil and other South American countries which were supplying livestock to the Gulf and would be challenged by high fuel prices in the years to come.

Dr. M.S.Sheshshayee, Professor and Head, Department of Crop Physiology, University of Agricultural Sciences, Bengaluru said the mantra has been to produce more from less, more crop per drop, more grain per rain and use of GM Technologies can help in achieving the same. Talking about proteins, he said Indians get nearly 70% proteins from cereals but that is not sufficient and contribution of livestock is immense.

### Need to convince NGOs and educate farmers

Dr. Devegowda, President of Institution of Veterinarians of Poultry Industry (IVPI) said that there was urgent need to convince non-governmental organizations which are opposing GM crops and also educate the farmers on the benefits of GM. India needs GM to feed the growing population, both human and livestock.



**Dr. K.C Veeranna**, Vice Chancellor,  
Karnataka Veterinary, Animal and Fisheries Sciences University, Bidar



**Dr. S.Rajendra Prasad**, Vice Chancellor,  
University of Agricultural Science, Bangalore



**Dr. P.S Mahesh**, Director (I/C), Central Poultry Development  
Organisation and Training Institute, Bengaluru



**Prof. G. Devegowda** President,  
Institution of Veterinarians of Poultry Industry



**Dr. Anjan Gosami** greeting **Dr. Susil Silva**, Head, Animal Utilization –  
South Asia, U.S. Soybean Export Council after his session



11 July 2022, Bengaluru



**Panel discussion: Making livestock industry competitive: Way forward [L-R: Dr. M.S. Sheshshayee, Professor and Head, Dept of Crop Physiology, UASB, Dr. Lalitha Gowda, Chair, Scientific Panel on GM-Foods, FSSAI, India; Member, GEAC and Former Chief Scientist, CFTRI, Mysore, Dr. N. K. S. Gowda, Principal Scientist, ICAR-NIAP, Dr. G. Deve Gowda, President, IVPI, and Mr. Naveen Pasuparth, Treasurer, CLFMA of India]**

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## Trade has to happen for quicker adoption of GM

Amit Sachdev, Regional Consultant, South Asia, US Grains Council, said trade needs to happen and mentioned that US and India had signed an agreement in 2021, allowing import of Alfalfa for the dairy industry. Underscoring the importance of GM crops, he said there was no other go, but to adopt as they were safe, cheaper and was going to be easily available in the world market.

## Calculating nutrient value leads to improved productivity

Susil Silva, Head, Animal Utilization, South Asia, US Soybean Export Council talked about “Nutrient Value Calculator” and explained key features of the tool and how it can be used for calculating nutritional value of feed and can contribute to improved productivity.

Dr. N.K.S.Gowda, Principal Scientist, ICAR-National Institute

of Animal Nutrition and Physiology also spoke about nutritional value of animal feed.

Dr. Sushanth Rai, President, Karnataka Poultry Farmers & Breeders Association said the demand for animal feed for poultry, dairy etc is growing and that soaring prices affected the sector. India needs to import soybean by September to tide over feed crisis, while there is urgency to produce more and GM was the only answer.

## Prof.G.Devegowda Poultry Science Excellence Award to Inayath Ulla Khan

On the occasion, Mr. Inayath Ulla Khan, Executive Secretary, KPFBA was conferred with the Prof.G.Devegowda Poultry Science Excellence Award 2022 instituted by Pashudhan Praharee. Mr. Khan was honored for the yeomen service he has rendered to the poultry sector in general and KPFBA in particular.

Mr. Khan proposed a vote of thanks.



**L-R: Mr. Neeraj Kumar Srivastava, Chairman-CLFMA, Prof. G. Devegowda President, Institution of Veterinarians of Poultry Industry, Mr. Inayath Ulla Khan, Executive Secretary – KPFBA, Mrs. Shabreen Begum Khan, Dr. Vibha Ahuja, CGM- Biotech Consortium India Limited (BCIL) and Dr. Sushanth Rai.B, President, KPFBA**



## Person of the Month: Mr. M.Sriharireddy

**Person of the Month** –The Karnataka Poultry Farmers and Breeders Association has had illustrious Presidents leading the sector to new heights. One of the past Presidents who stands out is Mr. Sriharireddy Mangalapuru, the Managing Director and Partner of Lotus Farms.

The tenure of his Presidency (January 8, 2010 to July 26, 2013) has few milestones that remain etched in the records of KPFBA history. He was one of the persons who was instrumental for the initiative of Single Window system to sell parent culls. It was during his term that the association was rechristened as KPFBA from Karnataka Hatcheries Association (KHA). It was his vision to encompass all segments of the poultry sector under one umbrella.

Two other initiatives of his remain forever – he insisted on having an office for the association and started KPFBA office in rented premises in Vasanthnagar. The vision of having office of our own has helped the KPFBA to grow further which is now getting into a huge office in the Veterinary College campus, Hebbal under the leadership of Dr.Sushanth Rai.B being its current president. To engage with the poultry sector at large, Mr. Sriharireddy also got the official website up and running.

Mr. Sriharireddy studied at V.R.College, Nellore in Andhra Pradesh. In 1991, as a partner he started Lotus Farms with just 6,000 birds, some acres of land and a dream to serve others. Due to the concerted efforts of the top management, Lotus Farms has been consistently growing. The farm is one of the leading farms with million birds per year as it strives to deliver fresh and tender chicken in Karnataka.



## Tree planting programme by KPFBA

The Karnataka Poultry Farmers and Breeders Association (KPFBA) which advocates sustainable practices in the sector on July 29 planted neem and champa trees in and around its new building in Veterinary College Campus, Hebbal. The tree planting programme was done by Mr. Vivekananda, Superintendent of Police, Special Investigation Team, Lokayukta, Karnataka; Dr. B.P.Shankar, Pathologist, Institute of Animal Health and Veterinary Biologicals (IAHVB), Hebbal; the KPFBA President, Dr. B.Sushanth Rai and the KPFBA Executive Secretary, Inayath Ulla Khan.





## FELICITATIONS



**The KPFBA led by President, Dr. B.Sushanth Rai felicitated Dr. K.C.Veeranna on his formal appointment as Vice Chancellor of Karnataka Veterinary, Animal and Fisheries Sciences University, Bidar on 21<sup>st</sup> July 2022.**

*[L-R: Mr. Inayath Ulla Khan, Dr. Sushanth Rai. B, Dr. K.C. Veeranna and Mr. M.C.R Shetty]*



**The KPFBA President, Dr. B.Sushanth Rai. B felicitated the new Commissioner of the Registrar of Societies, Capt. Dr. K.Rajendra IAS, on 21<sup>st</sup> July 2022.**



**KPFBA felicitating newly appointed Managing Director of Karnataka Cooperative Poultry Federation, Dr. M. Prakash on 21<sup>st</sup> July 2022**

*[L-R: Dr. Ravindra, Dr. Gopal Reddy, Mr. Inayath Ulla Khan, Dr. M. Prakash & Dr. Sushanth Rai.B.]*



## KPFBA makes representation to Federation on Karnataka Poultry Development and Regulation Bill 2022

The Karnataka Poultry Farmers and Breeders Association led by President, Dr. B.Sushanth Rai met the Managing Director of the Karnataka Cooperative Poultry Federation, Dr. M. Prakash to apprise him of the recent Karnataka Poultry Development and Regulation Bill, 2022 which adversely affects the poultry farming community.

It may be mentioned here that the bill will impact the poultry farmers as the bill treats farming as an industrial activity. The KPFBA has been urging the government to keep it under agricultural operations as poultry farming has been going on as agricultural activity. Dr. Sushanth Rai said that additional taxes on poultry farming would be detrimental to the sector. The Managing Director assured to take up the matter with the government.

## Kerala announces liberal policy for poultry and dairy units

The Kerala government is planning to liberalise the licensing rules for dairy and poultry farms to enhance the domestic production of milk, meat and eggs. The Minister for Animal Husbandry and Dairy Development J. Chinchurani told the Assembly recently that the proposed reforms were expected to attract more youth to the sector.

She also said that 29 new mobile veterinary units had been procured under the Centrally sponsored Livestock Health and Disease Control project. As many as 12 mobile veterinary surgery units would also be pressed into service soon. Efforts were on to set up a network of mobile clinics under the Animal Disease Control Project to provide doorstep veterinary services for dairy farmers.



**Kerala Minister for Animal Husbandry,  
Ms. Chinchu Rani**

Ms. Chinchurani said the high-tech slaughterhouse established at the Meat Products of India and a factory to produce value-added meat products at Eroor in Kollam would begin production this year. A modern poultry processing plant would also come up at Kottukkal in Kollam soon.

The Minister said that plans were afoot to increase fodder production by 3.56 lakh metric tones and set up herd quarantine-cum-cattle trading centres in the border areas.

## Tamil Nadu to implement new rules for poultry farms from January next year

Poultry farms having birds over 5,000 and less than 25,000 birds at a single location will now have to obtain consent to establish (CTE) and consent to operate (CTO) under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, the Tamil Nadu State Pollution Control Board (TNSPCB) said.

The rule comes into effect from January, 1, 2023.

Poultry farms across the state have been asked to comply with the Environmental Guidelines for Poultry Farms ' issued by CPCB in January 2022 and get CTE and CTO from the Tamil Nadu Pollution Control Board as per the time schedule given above. For further details, contact the District Environmental Engineer and visit TNPCB official website: [www.tnpcb.gov.in](http://www.tnpcb.gov.in)

## Copper in feed good for poultry gut

Copper (Cu) has been widely used at pharmacological levels (e.g., 125 ppm) as growth promoter in poultry. However, the mechanism by which high levels of Cu promote growth remains to be determined. It is commonly recognized that Cu exerts anti-microbial effect in the gut but there is not much direct and consistent data showing that Cu alters the population of bacterial species in birds. And copper can maintain proper body functions and obtain the optimal growth performance of poultry.



Also, copper is a cofactor for various enzymes such as cytochrome oxidase, lysyl oxidase and Cu-Zn superoxide dismutase (Davis & Mertz, 1987). Basing on the central role in various vital proteins, deficiency and toxicity, Leeson (2009) reported that copper deficiency could cause severe health problems including growth depression, disability of bones, poor feathering and anemia. Copper additive in the diet, proved that it has a beneficial effect on weight gain, feed conversion ratio and modification of the bacterial microflora in the alimentary tract (Ruiz et al. 2000; Nys, 2001). Moreover, Copper is also regarded as a growth promoter in the poultry aspect of breeding (Kim et al. 2011), considering that the use of antibiotic as growth promoters is prohibited by many countries in Europe and elsewhere.

A balanced microbiome is crucial to protecting against diseases like necrotic enteritis. Providing copper supplementation above the nutritional level could help optimize intestinal structure and function and balance the poultry microbiome, resulting in improvements to broiler growth performance without antibiotics.

However, an overdose of copper (100-250 mg/kg) can restrict the growth of chicks (Nys, 2001). Therefore, the optimal level of dietary copper should be determined.



## ‘Indian Poultry Sector: Driving Forward’: IVPI to deliberate on Friday, 12<sup>th</sup> August 2022

The Institution of Veterinarians of Poultry Industry (IVPI) is organizing its annual signature event on August 12 at Hilton Manyata Embassy, Hebbal where the main theme of the deliberations will be – ‘Indian Poultry Sector: Driving Forward’. IVPI's event is arguably India's most awaited event bringing Veterinarians, policy makers, entrepreneurs, academicians, and media on one platform.

Presently, the buzzwords are sustainability, climate resilient farming practices, nutrition security through chicken and egg consumption etc and the veterinarians have to stay abreast of these developments.

IVPI is known for bringing futuristic topics, trends, deliberations to poultry farmers, hence the theme for the conference is "Indian Poultry Sector : Driving Forward ". The topics to be discussed include - Solar energy-efficient farming; EC sheds - Indian perspective; Optimum utilisation of Soy; Increasing consumption of poultry products through Innovative marketing; Exploring export opportunities; , Fortified branded Eggs etc. There will also be a talk on Hatchery Vaccinations which will further improve the productivity and efficiency.

This event is highly appreciated for its professional organizing skills and for networking purposes. On this occasion, IVPI will also confer the Life Time Achievement Award on a senior veterinarian who has contributed to the sustainable growth of the poultry sector.

IVPI is an association of veterinary professionals serving the Poultry Industry in the Karnataka State and in the Country. It is totally a non-profit organization working towards the benefit and growth of the Poultry sector. The objectives of IVPI are to, promote the professional knowledge of its members and the Industry group and to assist the development of the poultry sector. It conducts annually about 3-4 scientific programs and workshops towards development of professional knowledge and newer skills for the benefit of the sector.

**Institution of Veterinarians of Poultry Industry**

**INDIAN POULTRY: DRIVING FORWARD**

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**PROGRAM**

5.00 PM	Welcome Drink & Registration	7.25 PM	Import of Soybean Seeds and Processing, its Advantages Dr. Susil Silva, South Asia, USSEC
6.00 PM	Karnataka State Anthem	7.35 PM	Lifetime Achievement Award Ceremony
6.10 PM	Welcome Address & Introduction to the Theme Prof. G. Devegowda, President IVPI	7.50 PM	Egg Marketing: Challenges & Solutions Sri Singaraj, President, TNPFA and Poultry Products Exports Association
6.30 PM	Felicitations: Dr G Ranjith Reddy, Member of Parliament, Chevella, Telangana State	8.10 PM	Hatchery Vaccinations: Catching the Future Dr. Sanjay Gavkare, General Manager, Ventri Biologicals, Pune
6.45 PM	Solar Energy in Poultry Production: Practices & Challenges Sri. Naveen Pasupathy, Nanda Group	8.30 PM	Vote of Thanks & National Anthem
7.05 PM	EC Housing: Indian Perspective Dr. C R Behl, Poultry Strategy Advisor	8.40 PM	Networking Dinner

Prof. G. Devegowda  
President

Dr. Harshakumar Shetty  
General Secretary

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## Malaysia Bans Poultry Export to Curb Inflation; Can India export ?

The Malaysian Government announced on May 23 ban on chicken export to curb inflation. The ban restricts export of of 3.6 million chickens a month overseas until the domestic supply and price surge stabilises.

Malaysia exported poultry meat worth US\$18.9 million in 2020, making it the 49th largest exporter of the product in the world. The imposition of the ban comes amidst Malaysian consumers complaining of surging chicken prices due to a chicken shortage. The chicken shortage is in turn caused by factors such as increased cost of chicken production, disease infection amongst the chicken population and poor weather conditions. It is exacerbated by the ongoing Russia-Ukraine war, leading to global supply chain disruption.

Under a price control scheme in force between Feb 5 and June 5, the Malaysian government imposed a ceiling price of RM8.90 per kg of chicken, in spite of the price control, local grocers are pricing chickens as high as RM 17 per kg of chicken.

The impact of the poultry export ban is especially felt in Singapore which sources 34% of its poultry supply from Malaysia as live chickens, which are then slaughtered and chilled locally.

On 18 June 2022, the export ban was partially lifted, allowing exports of kampung and black chicken to Singapore. Commercial broiler chicken which makes up the bulk of the chicken export to Singapore remained banned.

The question is can India export to countries where Malaysia was supplying. The answer, according to some industry experts is, that unless cost of broiler production in India comes down, the margins wont be attractive. High cost of raw materials has resulted in cost of production going up and consequently wholesale and retail prices are on the rise. The industry is grappling with increasing productivity through improved efficiencies, resulting in better feed conversion ratio.



## RECIPE: CHICKEN PAKORA

### 1. Ingredients :

- 250 grams chicken (½ lb) strips or cubes
- 1 medium onion (optional) crushed or sliced
- 1 to 2 green chilies chopped (optional)
- ¾ tablespoon ginger garlic paste or crushed
- ¾ to 1 teaspoon red chili powder (reduce for kids)
- ¾ to 1 teaspoon garam masala
- ¼ teaspoon turmeric or haldi
- 1/3 teaspoon Salt (adjust to taste)
- 2 sprigs curry leaves or
- 2 tbsps mint leaves or coriander leaves chopped
- 6 tablespoon besan or gram flour (¼ cup + 2 tbsps)
- 3 tablespoon rice flour or corn flour
- 1 egg white
- 2 tablespoon water (you may need more)
- Oil to deep fry

### Preparation:

1. Add besan, rice flour, salt, turmeric, chilli powder & garam masala to a bowl.
2. Mix well and taste it. Add more salt if needed
3. Next add ginger garlic, onions, curry leaves & green chilies.
4. Cut chicken to thin strips or cubes of 1 by ¾ inch.
5. Add them to the bowl along with egg white.
6. Mix everything well adding water only as needed to make a thick stiff mixture.
7. The mixture must be thick and not loose like batter.
8. Deep fry in oil till it becomes golden brown



## CHICKEN TRIVIA



*KFC is valued at \$8.5billion and places 86th on the World's Most Valuable Brands 2019 list. Not bad for something that started out as fried chicken at a petrol station, eh?*



**A mother hen turns her eggs about 50 times per day and can lay more than 300 eggs per year.**

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