

CARI **TECHNOLOGIES** **& SERVICES**



ICAR-CENTRAL AVIAN RESEARCH INSTITUTE
Izzatnagar, Bareilly



CARI Linkages



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Izzatnagar, Bareilly





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Foreword



Poultry industry in India has appeared as the most dynamic and fastest growing segments amongst agricultural sector today with an annual growth rate of 8.51% in egg and 7.52% in broiler production. This resulted India as world's third largest egg producer and fifth largest chicken meat producer country. This transformation had taken place in all the areas of farming such as breeding, nutrition, hatching, management as well as feed and product processing technologies, etc. The poultry sector is posting an annual turnover of 10,000 million dollars and satisfying the hungers of 20 million people through employment. Around 4 lakh farmers are engaged in poultry farming activities with 85% of them having less than 2 Hectare of land. Urban demand still accounts for 80% of domestic consumption. South India accounts for majority of the total poultry production and consumption in the country. Andhra Pradesh, Karnataka, Kerala, Tamil Nadu in south and Maharashtra in the west and Haryana, Punjab in the north are key regions in this aspect. In the recent past, poultry industry in North India specially Uttar Pradesh, the largest state is taking a big boom with a contribution of 47.32% and 2.6% meat and egg production in the country. U.P. Poultry Development Policy-2013 is a welcome development that has enhanced the lives of several farmers in this state. Technological support is therefore crucial for the sustained growth of poultry sector. Being, a premier poultry institute in U.P, this institute has shared a much of burden to bridge the gap for reaching the needy farmers with technological advancements.

ICAR-Central Avian Research Institute (CARI) was established on the 2nd November, 1979 at Izatnagar, Bareilly, Uttar Pradesh under the aegis of the Indian Council of Agricultural Research (ICAR) to provide all-round support to the growth of poultry sector. Since its inception, this Institute has been playing an important role by providing need-based R&D support for diversified poultry production, processing and marketing, apart from Post-graduate education, training and technology transfer activities for augmenting productivity, production and profitability of the Indian poultry sector. Moreover, the Institute has been continuously updating and reorienting its R&D focus abreast with the latest developments taking place globally and in accordance with the changing needs of the domestic poultry sector. This institute has been the major driving force steering the Indian poultry sector through various phases of development during the past four decades providing much-needed technological support to the poultry industry especially the rural poor.

The institute has also made significant contributions towards the evaluation and standardization of alternate and newer feed resources to help in lowering the feed cost besides developing feed formulae for computing low cost ration under different climates and regions of the country. The improvement in feed efficiency has also been brought through increasing nutrient availability. Institute has developed the protocols for about two dozen value-added processed products utilizing poultry egg, meat, and byproducts and developed of methods for their shelf-life extension. The universal semen extender for different poultry species was developed which can maintain fertility till 24 h. This institute is only one of its kinds wholly dedicated to Poultry Science research, education, and extension in the country with the following vision, mission and mandate.

(Ashok Kumar Tiwar)
Director

Introduction

Introduction

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Mandate

Basic and applied research on productivity enhancement for sustainable production in diversified avian species.

Human resource development and capacity

Vision –

Revolutionizing the diversified poultry production for household nutritional security, income and employment generation as a viable alternative to chicken.

Mission -

Developing and popularizing appropriate poultry production and processing technologies in respect of diversified avian species for enhanced profitability.

Landmark contribution of the institute in poultry research -

Way back in 1930's the role of poultry in fighting poverty and malnutrition was recognized. Accordingly, on the recommendations of the Royal commission on Agriculture (1927)/ a separate poultry Research Section was established in erstwhile Imperial Veterinary Research Institute, Izatnagar, Bareilly (UP) on March 11, 1939. Later, the Section became a full-fledged Poultry Research Division (PRD) and continued to play a significant role in development of Indian poultry industry. Mr. Macdonald (1939-1947) was the first Head of the PRD. The significant achievements of the PRD and its all round support to the progress of poultry sector in the country contributed to upgrading of the erstwhile PRD to the status of the Institute during the V Plan and thus, the Central Avian Research Institute (CARI) - combining the PRD and the Coordination Union of AICRP on Poultry Breeding, came into existence on November 2, 1979.

The technological breakthroughs led by ICAR-CARI, the oldest and only research institute of its kind under the aegis of the ICAR wholly dedicated to poultry science research have contributed significantly towards the evolution and transformation of backyard/free range small scale subsistence poultry into fully developed intensive commercial farming in the country. As a result, the Indian poultry sector has been growing 8% per annum, with 1.1% share in GDP and 11.2% of the livestock GDP.



Improved Varieties

Commercial White Egg Laying Chicken



CARIPRIYA™ - Suitable for cage rearing

Breeders of egg type chicken are primarily concerned with the development of quality layers in terms of feed efficiency, low chick cost and high egg production. CARL Priya, earlier known as ILI-80, is one such white egg layer. CARL Priya was developed by crossing superior male and female lines of White Leghorn.

PRODUCTION CHARACTERISTICS

Maturity	First egg	17 to 18 weeks
	50% production	150 days
	Peak production	26 to 28 weeks
Livability	Growing	96%
	Laying	94%
	Egg production Peak	92%
Feed consumption	Hen housed to 72 weeks	More than 298 eggs
	Hen day to 72 weeks	More than 301 eggs
	Per dozen of eggs	1.77 kg
	Per kg of egg mass	2.57 kg
Egg size	Average egg weight	57 g

Special Features

- Efficient feed conversion
- High positive return over feed cost



Commercial Brown Egg Laying Chicken



CARISONALI- Suitable for cage rearing

To cater to the needs and high demand of the consumers, this golden brown eggger was developed and released for its commercial exploitation in the year 1992 using White Leghorn as male line and Rhole Island Red as female line.

PRODUCTION CHARACTERISTICS

Maturity	First egg	18 to 19 weeks
	50% production	155 days
	Peak production	27 to 29 weeks
Livability	Growing	96%
	Laying	94%
	Egg production Peak	90%
Feed consumption	Hen housed to 72 weeks	More than 280 eggs
	Hen day to 72 weeks	More than 283 eggs
	Per dozen of eggs	2.3 kg
Egg size	Per kg of egg mass	3.8 kg
	Average egg weight	54 g

SPECIAL FEATURES

- Lays brown eggs
- Efficient feed conversion
- High egg production



DUAL PURPOSE CHICKEN



CARIDEBENDRA- Suitable for Backyard Extensive System

It is a medium-sized dual-purpose bird, produced by crossing coloured synthetic broiler line as male line and Rhode Island Red as female line. It is the most suitable bird for the Indian consumers due to its attractive bright plumage colour. The meat has lower carcass and abdominal fat than broiler meat, which makes it a consumer's delight. CARI Debendra is also a suitable bird for rural poultry because of its better survivability and moderate egg production ability.

PRODUCTION CHARACTERISTICS

Body weight at 8 weeks	1100-1200 g
Body weight at 10 weeks	1400 to 1500 g
Body weight at 12 weeks	1700 to 1800 g
Feed conversion ratio (0-8 week)	2.5-2.6
Age at sexual maturity	155 - 160 days
Annual egg production	190-200
Livability (Growing)	97%
Livability (Laying)	94%

SPECIAL FEATURES

- Efficient feed conversion
- Low laying house mortality
- Scavanging 1sqm/bird in cultivated



Commercial Broiler Chicken (White)



CARIBROVISHAL

CARIBRO Vishal, a broiler that excels in the important areas of economic growth, feed efficiency, livability, meat quality and also the plumage colour with high performance features in tropical climate has been developed.

PRODUCTION CHARACTERISTICS

Body weight at day old	43 g
Body weight at 5 weeks	1250 to 1350 g
Body weight at 6 weeks	1650 to 1700 g
Dressing percentage	75-80
Livability percentage	97-98
Feed conversion ratio at 6 weeks	1.85

SPECIAL FEATURES

- Superior growth rate
- High disease resistance
- Low production cost
- Suitable to Indian climatic and managerial conditions

Commercial Broiler Chicken (Multi-Coloured)



CARIBRODHANRAJA™ is a commercial cross produced by crossing coloured synthetic male and female lines. This stock is characterized by its bright plumage colour with single comb. It is the most preferred bird among farmers because of its multicoloured plumage and high economic returns.

PRODUCTION CHARACTERISTICS

Body weight at day old	46 g
Body weight at 5 weeks	1250 to 1350 g
Body weight at 6 weeks	1500 to 1700 g
Dressing percentage at 6 weeks	73-75
Livability percentage at 6 weeks	96-98
Feed conversion ratio at 7 weeks	1.92

SPECIAL FEATURES

- Multicoloured and hardy
- Efficient feed conversion
- Optimum dressed carcass yield

CARIBRO Mrityunjay

Commercial cross produced through introgression of naked neck gene into coloured and white synthetic broiler lines by repeated backcrossing. It is characterized by its adaptability to high ambient temperature, which make it the ideal bird for tropical environment.



Body weight at day old	38- 42 gm
Body weight at 6 weeks	1400-1500 gm
Feed conversion ratio at 6 weeks	1.95
Liveability percentage	97-98
Dressing percentage	75-77

Special Features

- Both coloured as well as white
- Adaptable to high ambient temperature
- Efficient feed conversion

CARIBRO Tropicana

Naked neck and frizzle broiler stocks were crossed to develop CARIBRO Tropicana which has both naked neck and frizzle phenotype.



Body weight at day old	38- 40 gm
Body weight at 6 weeks	1300-1400 gm
Feed conversion ratio at 6 weeks	1.90
Liveability percentage	94-96
Dressing percentage	74-76

Special Features

- Better heat tolerant
- Better dressing percentage
- Perform better with low inputs under hot and humid conditions
- Better option for tropical poultry production

Improved Indigenous Crosses



CARINIRBHEEK

Different types of high yielding germ-plasm suitable for backyard poultry production have been developed with native fowl base especially suitable for different climatic regions of the country. These birds have combination of 50% native and 50% exotic blood and possess other characteristics essential for backyard/scavenging poultry production. Phenotypically these birds look like their original native breed with two or three times more egg production with bigger size and weight, better tropical adaptability and disease resistance along with capability of bearing the stress of sub-optimal feeding and management.

It is a cross of Indian native breed Aseel with CARL Red. Birds are active, large in built, pugnacious in nature with high stamina and majestic gait. They are able to save themselves from their predators due to their fighting characters and activeness and are adapted to all climatic zones of the country.

PRODUCTION CHARACTERISTIC

Body weight at 20 weeks (Males)	1847 g
Body weight at 20 weeks (Females)	1350 g
Age at sexual maturity	176 days
Annual egg production	198
Egg weight at 40 weeks	54 g
Fertility	88%
Hatchability (FES)	81%



Improved Indigenous Crosses**CARISHYAMA**

It is a cross of Kadakanath breed of Indian native chicken with CARL Red. Birds have plumage of various colours dominated by black. The skin, beak, shank, toes and soles are dark gray colour. The peculiarity of this bird is that most of the internal organs show the characteristic black pigmentation. Varying degree of blackish colouration is also found in skeletal muscles, tendons, nerves, meninges, brain and bone marrow. The black colour of muscles and tissues is due to deposition of melanin pigment which causes increase in protein and decrease of fat and thickness of muscle fiber is reduced due to which meat from older birds are also tender. This variety is ideally suited for rearing in tribal areas due to preference for dark meat by the tribal population.

**PRODUCTION CHARACTERISTICS**

Body weight at 20 weeks (Males)	1460 g
Body weight at 20 weeks (Females)	1120 g
Age at sexual maturity	170 days
Annual egg production	210
Egg weight at 40 weeks	53 g
Fertility	85%
Hatchability (FES)	82%



Improved Indigenous Crosses (Hot Climate)**UPKARI**

Indian native chicken with Frizzle plumage has been crossed with CARI Red for development of Upkari birds. These multicoloured birds have single comb and medium body size.

Presence of Frizzle plumage helps in fast heat dissipation due to which birds are better adapted to tropical climate specially for arid zones.

PRODUCTION CHARACTERISTICS

Body weight at 20 weeks (Males)	1688 g
Body weight at 20 weeks (Females)	1285 g
Age at sexual maturity	165 days
Annual egg production	220
Egg weight at 40 weeks	60 g
Fertility	90%
Hatchability (FES)	84%



Improved Indigenous Crosses (Hot & Humid Climate)



HITKARI

Hitcari birds have been developed by crossing the Indian native Naked neck with exotic breed CARI Red. The neck region is devoid of feathers and there is reduction of 30 to 40% feathers on the body. The reduction in feathers help in internal heat dissipation which increases the tropical adaptability due to which there is no reduction in egg production and egg shell thickness during extreme summer. There is a decrease in heat stress mortality, increase in fertility and hatchability during summer and protein requirement for juvenile growth is reduced. These birds are very suitable for rearing in the hot humid coastal region.

PRODUCTION CHARACTERISTICS

Body weight at 20 weeks (Males)	1756 g
Body weight at 20 weeks (Females)	1320 g
Age at sexual maturity	178 days
Annual egg production	200
Egg weight at 40 weeks	61 g
Fertility	92%
Hatchability (FES)	81%



Improved Indigenous Broiler Cross**CARIBROSAMRIDHI**

A location specific desi broiler cross suitable for backyard poultry production in regions of northern parts of India. Considering the agro-climatic conditions of the northern regions of India, it is apparent that the native chicken germplasm should be utilized as the primary germplasm in the breeding program for sustainable chicken production in the area. To achieve the aforementioned objectives of developing a location-specific desi broiler type variety, the Central Avian Research Institute in Izatnagar, has developed a coloured desi broiler chicken variety known as CARIBROSAMRIDHI for meat production. This variety produces high-quality meat under local rearing and feeding practices. The salient features of the developed variety are:

- Attractive-multi coloured plumage and feather patterns as rural people like coloured birds from aesthetic point of view and better looking.
- Adaptability to the local climatic environment
- Longer shank length which help in self-protection from predators in backyard areas and larger breast angle which shows breast meat yield.
- Grow faster and attain a flavour profile in the meat that closely resembles that of desi chicken.
- Higher immune response
- Low cost of production
- Higher net profit percentage
- Better dressing percentage to align more closely with that of commercial broiler chickens.
- Higher meat: bone ratio



New Improved Varieties (Under Evaluation)

CARIDHAWAL

The dual type climate resilient white plumaged cross has developed for efficient egg production in intense summers/tropical conditions. Its laying capacity is about 250-260 eggs per annum.



CARINIRASAFED

The dual type climate resilient white plumaged cross has developed for efficient egg production in intense summers/tropical conditions. Its laying capacity is about 250-260 eggs per annum.



CARIPRABAL

Birds are active, large in built, pugnacious in nature. They are able to save themselves from their predators due to their fighting characters and activeness and are adapted to all climatic zones of the country. Its laying capacity is around 160-170 eggs per annum.



CARISALONI

The skin, beak, shank, toes and soles are dark gray colour with muscle and most internal organs having black pigmentation due to deposition of melanin pigment. Its laying capacity is about 160-170 eggs per annum.



CARIGRACY

It is a cross of Nicobarimale & CARI-red female with plumage of various colours of black, brown and red. Its laying capacity is about 220-225 eggs per annum.



Breeds of Native Chicken at CARI

Work on Aseel and Kadakanath native fowl breeds were initiated during 1976 and later on Naked Neck and Frizzle ecotypes were included in the year 1992. Ankaleshwar and Nicobari have also been added in CARI native chicken family during 2007 and 2010, respectively. All native birds achieve 1150 to 1250 g weight at 20 wk. age & lays 90 to 110 eggs per year



Assel Peela (Female and Male)

Aseel: Aseel is mostly regarded as the Indian game fowl due to its pugnacity, high stamina, majestic gait and dogged fighting qualities. The pure breeds of Aseel are still found in its breeding tract i.e. Andhra Pradesh, some area of the states of Rajasthan, MP, Chattisgarh and Odisha. It measured about 28 inches from back to toe. The most popular varieties of Assel are peela (golden red), yarkin/ yakub (black and red), Nurie (white), kagar (black), chitta (spotted black and white silver), Teekar (brown) and Reza (light red).



Assel Kagar (Male and Female)

Kadakanath/Kalamasi: It is a dual-purpose breed with poor mothering ability found among tribal communities of Bhil and Bhilala in the Jhabua and Dhar districts of Western Madhya Pradesh and in adjoining areas of the states of Gujrat and Rajasthan. The Kadaknath is popular mainly for its adaptability and the well-tasting black meat, which is believed to infuse vigour. The commonly available varieties of Kadaknath are jet-black, pencilled and golden. It is known for higher protein (25.47%), lower fibre and fat content along with aphrodisiac properties.



Kadakanath (Female & Male)

Naked Neck: Naked Neck is a dual-purpose utility chicken found in Andaman and Nicobar Islands and north-eastern states. The homozygous naked neck bird has no feather in its neck and vent and capable of tolerating the tropical stress. It lays one of the largest sized eggs (53-58g) among all the Indian native breeds of chicken.



Naked Neck (Female & Male)

Frizzle fowl: Frizzle fowl is described as a heavy breed, having a single comb, is clean legged, found in north-eastern states and Andaman and Nicobar Island and has the size of the Plymouth Rock. Frizzle plumage helps in fast heat dissipation due to which birds are better adapted to the tropical climate especially the arid zones.



Frizzle fowl (Female & Male)

Nicobari: As name suggest, Nicobari is native of Andaman and Nicobar Island and locally known as Takniet hyum which means short legged chicken with compact appearance. It has comparatively smaller body size, somewhat round with a stout neck. These birds are good layer among native breeds and produce around 130-140 eggs per year of relatively smaller size (40-45g).



Ankleshwar (Male & Female)

Improved Guinea Fowl Varieties (Pearl)



KADAMBARI

The Guinea Fowl birds were developed through selection and breeding programme from a wide base stock of indigenous Guinea fowl. These birds are improved for high disease resistance and better growth rate. Three varieties of Guncari birds viz. Kadambari, Swetambari and Chitambari are available for commercial utilization. It is a hardy bird, suitable for any agro-climatic condition. There is no requirement of elaborate and expensive housing. It has excellent foraging capabilities and consumes all non-conventional feed not used in chicken feeding. It is more tolerant to mycotoxins. The hard egg shell provides minimum breakage and long keeping quality. Guinea fowl meat is rich in vitamins and low in cholesterol.

Production Characteristics

Body weight at 8 weeks	600-620 g
Body weight at 12 weeks	1000-1035 g
Age at first egg	230-250 day
Egg weight	40-43 g
Egg production (March to September)	100-120 eggs
Fertility	70-73%
Hatchability on fertile eggs set	70-78%
Livability	Excellent

Special Features

- Kadambari has black plumage with white and uniformly distributed spot.

Improved Guinea Fowl Varieties (Lavender)



CHITAMBARI

Production Characteristics

Body weight at 8 weeks	600-620 g
Body weight at 12 weeks	1000-1030 g
Age at first egg	232-251 day
Egg weight	40-43.5 g
Egg production (March to September)	100-120 eggs
Fertility	70-73%
Hatchability on fertile eggs set	80-82%
Livability	Excellent

Special Features

Improved Guinea Fowl Varieties (White)

SWETAMBARI

Production Characteristics

Body weight at 8 weeks	525-560 g
Body weight at 12 weeks	920- 960 g
Age at first egg	230-250 day
Egg weight	38-40 g
Egg production (March to September)	100-115 eggs
Fertility	60-65%
Hatchability on fertile eggs set	70-80%
Livability	Excellent



Special Features

- Swetambari is pure white in colour.



Improved Domesticated Quail Varieties



JAPANESE QUAIL (*Coturnix japonica*) has created a huge impact in poultry sector and many quail farms have been established recently throughout the country, both for egg and meat production. CARI has been a nerve centre for introduction, genetic improvement and developing quail production technology in India since 1974. Through concerted efforts, a workable package of feeding, management and health care practices have been developed to support quail production in a scientific manner. This Institute has been maintaining six different plumage coloured pure lines of quail (broiler and layer types), and their consistent supply to both public and private sectors in the country for research and development as well as commercial exploitation.

CARI UTTAM (Broiler Quail)

Production Characteristics

Body weight (4th week)	150-155 g
Body weight (5th week)	250 g
Feed efficiency (4th week)	2.51
Feed efficiency (5th week)	2.60
Average egg weight	12-13 g
Colour of eggs	Tinted
Daily feed consumption	20-22 g
Hatchability on total egg set	70-75%
Better livability, body weight gain, feed conversion and profit	

Improved Domesticated Quail Varieties (White Egger)



CARI PEARL

Production Characteristics

Body weight (5th week)	140 g
Daily feed consumption	18-20 g
Age at 50% egg production	8 weeks
Age at 80% egg production	10 weeks
Average egg weight	9 g
Colour of eggs	Tinted
Hen day production	285-300 eggs
Hatchability on total egg set	70-80%
High egg production and egg also ideal for biological research	

Improved Domesticated Quail Varieties (White Breasted Quail)

CARIUJJAWAL

Production Characteristics

Body weight (4th week)	140 g
Body weight (5th week)	175 g
Feed efficiency (5th week)	2.70
Average egg weight	11 g
Colour of eggs	Tinted
Daily feed consumption	20-22 g
Hatchability on total egg set	70%



Improved Domesticated Quail Varieties (White Feathered Quail)

CARISWETA

Production Characteristics

Body weight (4th week)	150 g
Body weight (5th week)	160-170 g
Daily feed consumption	25 g
Feed efficiency (4th week)	2.60
Feed efficiency (5th week)	2.70
Average egg weight	10-11 g
Colour of eggs	Tinted
Hatchability on total egg set	60-65%
Plumage colour	Completely white feather



Improved Domesticated Quail Varieties (Brown Feathered Quail)

CARIBROWN

Production Characteristics

Age at sexual maturity	40 days
Body weight (4th week)	160 g
Body weight (5th week)	180-185 g
Average egg weight	11 g
Colour of eggs	White and tinted
Hatchability on total egg set	60-70%
Plumage colour	Completely brown



Improved Domesticated Quail Varieties (Brown Feather White Breasted)

CARISUNHERI

roduction Characteristics

Age at sexual maturity	42 days
5 th Week body weight (straight-run)	180 g
Feed conversion ratio (5 th week)	2.70
Average egg weight	11 g
Colour of eggs	White and Tinted
Age at 50% egg production	8 weeks
Age at peak egg production	12 weeks
Livability (0-5 weeks of age)	95%
Hatchability on total egg set	60-70%
Plumage colour	White breasted brown



Improved Turkey Varieties



CARIVIRAT

Turkey is mainly reared for meat. It is one of the famous white meat known for its leanness. It is a popular delicacy especially for festive occasions like Christmas and New Year. Turkey meat has tremendous commercial viability because of its low fat and cholesterol contents. It is quite suitable for upliftment of small and marginal farmers. Turkey can be easily reared in free range or semi-intensive system with minimal investment for housing, equipments and management.

CARI VIRAT

Production Characteristics

<i>Age (week)</i>	<i>Body weight (g)</i>	<i>Feed Conversion Ratio</i>
6	1054	1.85
8	1200	2.05
10	1901	2.37
12	2578	2.80
24	4270	3.78
32	5100	4.15
Fertility	94%	
Hatchability	86%	

Special Features

- Low fat & cholesterol
- Suitable for backyard rearing



MOUs FOR GERmplasm SUPPLY (2019-20 to 2023-24)

Sl.	Name of Technology	Client/Contracting Party	Date of signing of the MoU	Amount (Rs.)
1.	CARI RED and ASEEL PEELA Parent Line	The Assistant Director, Govt. Hatchery Farm, Hisar	13/08/2019	134750/-
2.	ASEEL PEELA Parent Line	Mr. Prasant Chaturvedi, New Rajendra Nagar, New Delhi	28/08/2019	35844/-
3.	Parent line of RHODE ISLAND RED (RIR)	Mr. Ripudaman Singh, Awass Vikas Colony, Sikandra, Agra	13/02/2020	15400/-
4.	Parent line of RHODE ISLAND RED (RIR)	M/s Shipra Hatchery, Thana- Minapur, Muzaffarpur, Bihar-843128	14/02/2020	165000/-
5.	Parent line of CARI RED, Aseel Peela, Aseel Kagar, Nicobari and Ankaleshwar	Mr. Abhijit Prakash Vill- Pushptali, PO- Bharayal, Distt- Bareilly	18/06/2020	165980/-
6.	Kadakhnath Parent Line	CTO, IPDP, Kotdwar, Uttarakhand	17/07/2020	134750/-
7.	RIR Parent Line	CTO, IPDP, Kotdwar, Uttarakhand	17/07/2020	39600/-
8.	Parent stock CARIUTTAM (Japanese Quail)	M/s A.H. Poultry Farm, Meerut, UP	07/09/2020	52800/-
9.	Parent line of CARI RED and ASEEL PEELA	The Farm Superintendent, Govt State farm Chak Ganjaria farm Neblet, Barabanki	14/09/2020	52800/-
10.	Parent line of CARI RED and ASEEL PEELA	Mr. Abhinav Singh, Pilibhit, Uttar Pradesh-262001	21/09/2020	11000/-
11.	Parent line of ANKALESHWAR and SILKIE	Shri Narendra Singh, Jagdamba Colony, Singrawat, Sikar, Rajasthan	24/09/2020	31350/-
12.	Parent line of ASEEL KAGAR	Shri Richhpal Singh, Sivrasahi, Makarana, Nagaur, Rajasthan	25/09/2020	56430/-
13.	Parent line of ASEEL PEELA	Shri Richhpal Singh, Sivrasahi, Makarana, Nagaur, Rajasthan	25/09/2020	49500/-
14.	Parent line of CARI Red	Shri Narendra Singh, Jagdamba Colony, Singrawat, Sikar, Rajasthan	25/09/2020	49500/-
15.	Parent line of NICOBARI	Shri Narendra Singh, Jagdamba Colony, Singrawat, Sikar, Rajasthan	25/09/2020	64185/-
16.	Parent line of NICOBARI	Shri Kurban Singh, PO Hamirpur, Teh Tanda, Rampur, UP	10/07/2020	41250/-
17.	Parent line of ASEEL PEELA	Shri Babu Ali, Rampur, Uttar Pradesh	10/07/2020	66000/-
18.	Parent line of CARI RED	Shri Rihan Teh Tanda, Rampur, Uttar Pradesh	10/07/2020	49500/-
19.	JAPANESE QUAILS (CARIUJJAWAL, CARIBROWN & CARISWETA)	Shri M R Kidwai, R/O Bada Gaon, Distt- Barabanki, Uttar Pradesh	16/10/2020	70400/-
20.	Parent line of Rhode Island Red (RIR)	M/s Mahak Sales Pvt Ltd, Pitampura, Delhi	27/10/2020	61600/-
21.	Parent line of CARI RED	Mr. Praveen Kumar, Jind, Haryana	03/11/2020	168300/-
22.	Parent line of ASEEL PEELA	Mr. Kurban Shah, PO- Hameerpur, Teh Tanda, Rampur	03/11/2020	19305/-
23.	Parent line of Kadakhnath	Shri Yashwant Rao (Retired IAS), Gomtinagar, Lucknow, UP	05/11/2020	27500/-
24.	Japanese Quail CARIUTTAM Fertile Eggs	The Superintendent, Govt. State Poultry Farm Chak Ganjaria Farm, Barabanki	23/11/2020	33000/-
25.	Parent line of CARI RED	Shri Naresh Kumar, West Delhi, Delhi	15/12/2020	21560/-
26.	Parent line of ASEEL PEELA	Shri Naresh Kumar, West Delhi, Delhi	15/12/2020	21560/-
27.	Parent line of KADAKNATH	Shri Naresh Kumar, West Delhi, Delhi	15/12/2020	21560/-
28.	Parent line of CARI RED and KADAKNATH	Mohd. Nadeem, Pilibhit, Uttar Pradesh	15/12/2020	15840/-
29.	Parent line of CARIBRODHANRAJA™	Mr. Ripudaman Singh, Agra Uttar Pradesh- 282007	02/03/2021	22000/-
30.	Parent line of CSFL Fertile Egg	Dr. Siddharth Mishra, PI, AICRP on Poultry Breeding, Dept. of Animal Production, MPUA&T, Udaipur, Rajasthan-313002	16/03/2021	15015/-

31.	Parent Line of CARIBRODHANRAJA™ Fertile Eggs	M/s Purvanchal Breeding Farm,Vill- Sabya, Po-Kasya, Distt- kushinagar, UP	26/03/2021	66000/-
32.	Parent line of Aseel Peela	The Deputy Director, SPF, Hessarghatta, Karnataka	14/04/2021	16500/-
33.	Parent line of Aseel Kagar			16500/-
34.	Parent line of Kadaknath			16500/-
35.	Parent line of Naked Neck			16500/-
36.	Synthetic Male Line (SML) and Synthetic Dam Line (SDL) - Parent Lines of CARIBROVISHAL	Mr. Satendra Kumar Tomar, Vill- Deta kalan, Gabhana, Aligarh, U.P.-202155	22/04/2021	27500/-
37.	Synthetic Male Line (SML) -Male Parent Line of CARIBROVISHAL	Mohd. Anas Irtiza, Lucknow-226001 (U.P)	29/04/2021	9900/-
38.	Parent line of ASEEL KAGAR	Mr. Ayyoob, Vill- Kaliya Nagla, Hamirpur, Dist-Rampur-244927, U.P.	24/06/2021	24750/-
39.	Parent line of ASEEL PEELA	Mr. Ayyoob, Vill- Kaliya Nagla, Hamirpur, Dist-Rampur-244927, U.P.	24/06/2021	49500/-
40.	Parent line of Aseel Kagar	M/s Ravis Integrated Farms Doddaballapura Taluk, Bengaluru Rural District- 561204, Karnataka	03/07/2021	16500/-
41.	Parent line of Aseel Peela	M/s Ravis Integrated Farms Doddaballapura Taluk, Bengaluru Rural District- 561204, Karnataka	03/07/2021	16500/-
42.	Parent line of Kadaknath	Mr. Ravi, A., M/s Ravis Integrated Farms, Sy. No;182/1 & 182/2 at Chickellayanapalya, Hulikunte Village, Doddabelavangala Hobli, Doddaballapura Taluk, Bengaluru Rural District- 561204, Karnataka	03/07/2021	16500/-
43.	Parent line of Naked Neck	M/s Ravis Integrated Farms Doddaballapura Taluk, Bengaluru Rural District- 561204, Karnataka	03/07/2021	16500/-
44.	Japanese quail CARIUTTAM™	M/s Aravalli quail farms, Prop. Yasir chishty, Hatundi, Ajmer-	19/07/2021	11000/-
45.	Japanese quail (CARIUTTAM™)	Mr. Prashant Tomar, B-14, Kailash Nagar, Gird, Gwalior-474006, M.P	20/07/2021	35750/-
46.	Japanese quail (CARIUTTAM™)	M/s Farming House, Katarijiyora Nawabganj, Kanpur Nagar- 208002 (U.P.),	30/07/2021	88000/-
47.	Parent line of Kadaknath	Mr. Sunil Kumar, Tehsil- Kanina, Dist- Mahindergarh, Haryana-123027	26/08/2021	19250/-
48.	CARISUNHARI, CARISWETA™ AND CARIBROWN	Mr. Ateeq Ur Rahman, Meerut (U. P)- 250342	28/08/2021	11000/-
49.	Parent line of CSML	Mr. Mohd. Munir, Bijnor- 246745, (U.P.)	13/09/2021	13750/-
50.	Parent Stock Japanese Quails (CARIBROWN, CARISUNHARI AND CARISWETA™)	M/s Farming House, Prop. Mohd. Shakir, Kanpur Nagar- 208002 (U.P.),	13/09/2021	13111/-
51.	Parent line of (8-21 days old) Kadaknath	M/s Wings Poultry Farms, Meerut-245206 (U. P.)	27/09/2021	37400/-
52.	Parent line of CSFL and CSML	M/s Pramit Hahcheres prop Pramit Mehrotra, Varanasi-221002 (U.P.)	27/09/2021	244750/-
53.	Parent line of of Kadaknath	M/s Soccity of Himalayan (SOCH), Haldwani-263139 (UK)	30/09/2021	21736/-
54.	Parent line (2 days old) of Kadaknath	Mr. Pawan Kumar Gupta, Bareilly-243001 (U.P)	01/10/2021	11286/-
55.	Parent line of of RIR	M/s K G N prop. Mr. Arif, Poultry Farm, Kaliya Nagla, Rampur-244927 (U.P.),	04/10/2021	187000/-
56.	Parent line of of RIR	M/s Soccity of Himalayan (SOCH), Haldwani-263139 (UK)	08/10/2021	34650/-
57.	CSML-Male Pure Line	M/s Soccity of Himalayan (SOCH), Haldwani-263139 (UK)	08/10/2021	22000/-
58.	Parent line of of RIR	Mr. Gaurav Singh, Khalilpur, C. V. Ganj, Bareilly-243502	11/10/2021	38280/-

59.	Adult (Male and Female) of RIR (Pure Line)	Mr. Gyan Dev Gautam, Khalilpur, C. V. Ganj, Bareilly-243502	12/10/2021	38280/-
60.	Parent line of of Kadaknath	Mrs. Versha Dinkar, R/o Labour colony, CB Ganj , Bareilly, UP	13/10/2021	17160/-
61.	Parent line of of RIR	Mrs. Versha Dinkar, R/o Labour colony, CB Ganj , Bareilly, UP	11/11/2021	34650/-
62.	Parent line of of Aseel Peela	Mr. Mohd. Qasim, Rajasthan-341505	18/11/2021	98175/-
63.	Dalhem RED Grower Male (85-112 days old)	Mr. Tanveer Nizami, R/o Kajiyan, Jalalabad, Najibabad, Bijnor-246763, U.P.	20/11/2021	24750/-
64.	Synthetic Dam Line (SDL) - Female Parent Line of CARIBROVISHAL	Mohd. Ismail, R/o- Ajmer-305012 (Rajasthan),	10/12/2021	33000/-
65.	Parent line of adults of RIR	Mr. Rajesh Kumar, Izatnagar, Bareilly-243502 (U.P.)	23/12/2021	34650/-
66.	Parent line of RIR	Deputy Director, State Poultry Farm, State Poultry Farm, Hessargatta- Karnataka	12/01/2022	13750/-
67.	Parent line of Kadambari Guinea Fowl	Mr. Nizamuddin S, Tanda, Rampur-244927 (U.P.)	16/02/2022	41250/-
68.	Parent line of Kadambari Guinea Fowl	Mr. Shakeel, Mewat-122508, Haryana	02/03/2022	30938/-
69.	RIR & CARIREN-Parent Stock	Director, CPDO (WR), Aarey Milk Colony, Mumbai-400065	04/03/2022	121000/-
70.	Kadambari Guinea Fowl (Pure Line)	Mohd. Kamran, Vill- Bangas, Shahjahanpur-242001, Uttar Pradesh	05/03/2022	30938/-
71.	Parent line of RIR	Mr. Manpreet Singh, R/o- Kheri Mandlan, Patiala, Punjab-147021	07/03/2022	26950/-
72.	Parent Stock of Japanese Quail (CARIUTTAM™)	M/s Vet Farms prop. Kunjpura, Karnal-132001, Haryana	21/03/2022	33000/-
73.	Parent line of RIR	Mr. Rehan Ansari Mirzapur-231307, UP	21/03/2022	38500/-
74.	Parent line of CSML & CSFL	Dr. S K Dash, Officer Incharge, AICRP on Poultry, OUAT, Bhubaneswar	31/03/2022	59400/-
75.	Parent line of RIR	Shri Rajiv Kumar, R/o- 1822, Sec-7, Awasthi Vikas Colony, Sikandra, Agra (UP)	16/04/2022	43466/-
76.	Parent line of RIR	Shri Nawab Ahmed, Bareilly-243123 (UP)	13/05/2022	46200/-
77.	Parent line of White Leghorn (WLH)	M/s Raza Poultry farm Prop., Shahada-425409, Distt-Nandurbar (MH)	17/05/2022	23430/-
78.	Kadambari Guinea Fowl	Shri Richhpal Singh, Nagaur-341504,	19/05/2022	49500/-
79.	Kadambari Guinea Fowl	Shri Arif, R/o- Vill Kaliya Nagla, Tehsil-Tanda, Rampur-244927 (UP)	21/05/2022	82500/-
80.	Fertile eggs of Parent lines of CARIDEBENDRA	M/s Dimond Agro-Vet, PO-Kasaphalia-757050, Distt-Mayurbhanj, Odisha, India	03/06/2022	308000/-
81.	Kadambari and Chitambari (Guinea Fowl)	Shri Krishna Kumar Singh, Tehsil-Bilgram, District-Hardoi (U.P.)	29/06/2022	46200/-
82.	DOCs of Japanese Quail CARIUTTAM™ and CARIBROWN	Shri Krishna Kumar Singh Tehsil-Bilgram, District-Hardoi (U.P.)	29/06/2022	68750/-
83.	Parent line of Aseel Peela	Shri Krishna Kumar Singh, Tehsil-Bilgram, District-Hardoi (U.P.)	29/06/2022	55000/-
84.	Parent line of CARIREN and RIR	Shri Krishna Kumar Singh, Tehsil-Bilgram, District-Hardoi (U.P.)	29/06/2022	148500/-
85.	Parent line of Aseel Peela (Male) CARIREN (Female)	Dr. Sangeeta Dalal, Assistant Director, Govt. Hatchery Farm, Hisar-125001 (HR)	19/07/2022	82447/-
86.	Kadambari Guinea Fowl (Pureline)	Mr. Rihan Ali, Rampur (UP)-244925	15/09/2022	72187/-
87.	Parent line of CARIREN	Mr. Rajender Kumar, Wings Poultry Farms, Gagol, Partapur, Meerut	28/09/2022	11440/-
88.	Japanese Quail CARIUTTAM™	Mr. Bhupal Singh Bisht, Almora, Uttarakhand-263645	30/09/2022	16500/-

89.	Kadambari/ Swetambari/Chitambari Guinea Fowl	Mr. Ghanshyam Sikar -332718 Rajasthan	04/01/2023	165000/-
90.	Quail Eggs (CARIUTTAM)	Shri Afzal Haleem. Meerut- 25002	31/03/2023	27500/-
91.	Parent line of CARIRED	The Superintendent, State Poultry Farm, Barabanki (U.P.)	16/04/2023	47300/-
92.	Parent line of ASEEL PEELA	The Superintendent, State Poultry Farm, Barabanki (U.P.)	16/04/2023	8250/-
93.	Parent line of CARIRED	The Assistant Director Govt. Hatchery Farm Hisar HR	24/04/2023	40000/-
94.	Parent line of ASEEL PEELA	The Assistant Director Govt. Hatchery Farm Hisar HR	24/04/2023	10000/-
95.	Parent line of Japanese Quail (CARIUTTAM)	Mr. Abbas Rizvi S/o Zubair Hasan, Meerut 250222 (U.P.)	26/04/2023	16500/-
96.	Parent line of Kadaknatha	Shri Subal Sarkar S/o Hajari Lal Sarkar, Purnapur, Pilibhit (U.P.)	28/04/2023	27280/-
97.	Parent line of CARI LALIMA (RIR)	Shri Rajesh Kumar Saxena S/o Mahesh Chand, Shastri Nagar, Bareilly (UP)	01/05/2023	20240/-
98.	Parent line of Kadaknatha	Shri Rajesh Kumar Saxena S/o Mahesh Chand, Shastri Nagar, Bareilly (UP)	04/05/2023	22000/-
99.	Kadambari Chitambari and Swtambari (Guinea Fowl)	Shri Dharamveer Singh s/o Shri Jaypal, Udham Singh Nagar UK	12/05/2023	30166/-
100.	Parent line of Kadaknatha	The Dept. of Animal husbandry Lakshadweep	13/07/2023	77000/-
101.	CARIUTTAM& CARI BROWN	M/s SRS Country Chicken TN	15/07/2023	39600/-
102.	Parent line of CSML	Bihar Animal Sciences University, Patna	21/07/2023	57750/-
103.	Parent line of CSFL	Bihar Animal Sciences University, Patna	21/07/2023	57750/-
104.	DOCs TURKEY	Shri Narendra Singh S/o Shri Deep Singh, Sikar, Jaipur	10/08/2023	143000/-
105.	CSFL and CSML (Parent Line)	M/s MK Poultry and Hatchery, Ganjam, Odisha	14/08/2023	92400/-
106.	CSFL and CSML (Parent Line)	Shri Aslam S/o Shri Rais, Ratanpur, Rampur (UP)	21/08/2023	134750/-
107.	CSML (Parent Line)	Shri Narendra Singh S/o Shri Deep Singh, Sikar, Jaipur	28/08/2023	77000/-
108.	CARIUTTAM™ & CARIBROWN	M/s SRS Country Chicken, Tamil Nadu	07/09/2023	118800/-
109.	Parent line of ASEEL PEELA and KADAKNATH	Dr Shripal Siyak ,RAJUVAS, Bikaner	12/09/2023	26400/-
110.	Parent line of CARISWETA™ (JAPANESE QUAIL)	Shri Ajeet Kumar Saxena S/o Shri Balveer Sahai Saxena, Bareilly	20/10/2023	11000/-
111.	Parent line of CARIBROWN (JAPANESE QUAIL)	Shri Ajeet Kumar Saxena S/o Shri Balveer Sahai Saxena, Bareilly	20/10/2023	11000/-
112.	Parent line of CARIUTTAM™ (JAPANESE QUAIL)	Shri Ajeet Kumar Saxena S/o Shri Balveer Sahai Saxena, Bareilly	20/10/2023	11000/-
113.	Parent line of CARIUJJAWAL (JAPANESE QUAIL)	Shri Ajeet Kumar Saxena S/o Shri Balveer Sahai Saxena, Bareilly	20/10/2023	11000/-
114.	Parent line of CARISUNHERI (JAPANESE QUAIL)	Shri Ajeet Kumar Saxena S/o Shri Balveer Sahai Saxena, Bareilly	20/10/2023	11000/-



Technologies Offered

I. Processed Value - Added Poultry Meat Products

CARI Chicken Meat Baddi

CARI CHICKEN MEAT BADDI is formulated by using poultry meat, petha, white lentil, white paper etc. The final emulsion made after mixing of above ingredient is dried out at 55-60 °C for 12 hours. For making Chicken Baddi spent hen meat also can be utilities. Cooking yield of the product is 35.75%. Nutritional value: Per 100 g of Baddi is Protein 55.67 %, Fat 7.69%, Ash 0.37%, Fibre 3.31 % & Moisture 0.65%. It can be stored at room temperature for more than 4 months. CARI Chicken Meat Baddi is healthy village foods that are rich in tradition and taste which ultimately address the malnutrition, spent hen meat acceptability issue for overall benefit of society.



CARI Functional Chicken Sausages

Prepared from culled chicken which is considered waste by the layer industry. Contains less fat, low in sodium content, and also contain Makhana and oregano powder which provide health beneficial effects. Can be stored up to 20 days at refrigeration temperature (4±1 °C) under aerobic packaging condition.



CARI Chicken Tikka

Spent chicken meat (layer bird and breeder birds) can be well utilized to produce this product and may also attract a premium price. Chicken Tikka, a traditional/ethnic meat product of the country was developed using common naturally occurring ingredients. Spent hen meat is tough but will become soft during preparation of this product. Can be stored up to 30 days at 4 °C temperature



CARI Chicken Meat Pickle

It is a popular traditional meat product throughout the country but lacks effective storage life while compared with citrus fruit based pickle. Good quality of chicken meat pickle was developed in our lab using brine dipping methods. Can be stored up to 4 months at room temperature



CARI Functional Chicken Meat Bites

Functional chicken meat bites contain spent hen meat and health promoting ingredients (fox nut seed powder, moringa leaf powder and oregano). This product is unique since it is prepared from tough chicken meat and plant based health promoting ingredients, hence has greater potential for marketing and has a shelf life of 20 days at refrigeration temperature ($4\pm 1^\circ\text{C}$) under aerobic packaging condition.



CARI Development of Poultry Meat Wafer

Meat products are highly perishable in nature and need refrigeration facilities for their preservation. The expenditure incurred to assure uninterrupted cold chains for handling them is usually high. So, a process formulation was standardized for development of shelf-stable poultry meat wafer. Formulation containing combination of turkey and spent hen meat (70:30) mince 70%, table salt 1.0%, sodium tri-polyphosphate 0.2%, skimmed milk powder 3.5%, textured soya protein 5%, baking powder 0.5%, spice mix 1.75%, condiments 3%, monosodium glutamate 0.25%, rice flour 8.2%, maida 3% and oat flour 3.6% was suitable for processing of good quality meat wafers based on different physico-chemical and sensory quality characteristics. Cold extrusion method followed by microwave cooking was found to be most suitable processing technique.



CARI Development of Poultry Meat Finger Chips

Several individual trails were envisaged to optimize formulation for development of shelf-stable poultry meat finger chips. The formulation for meat finger chips optimized containing turkey and spent hen meat (50:50) mince 70%, table salt 1.3%, baking powder 0.6%, spice mix 2.5%, rice flour 13.1%, sorghum flour 6.6% and oat flour 6%. The finger chips were rated very good by the sensory panel members. The microwave method was selected best than cooking methods.



CARI Chicken Steaks



The technology for development of restructured chicken steaks utilizing spent hen meat has been standardized. A combination of textured soy protein and milk co-precipitate was found much more acceptable as extender and could be incorporated up to 30% level in chicken steaks' formulation. Packaging and shelf-life studies of the product indicated a refrigerated shelf-life of 9 days for vacuum packaged steaks as against 6 days for those packaged in low density polyethylene (LDPE) pouches. Under frozen storage ($-18\pm1^{\circ}\text{C}$) the steaks of both packaging groups could safely be stored up to 60 days, however, vacuum packaged steaks were more acceptable throughout the storage.

CARI Mixed Chicken Loaf

Mixed chicken loaf made with dark meat from Kadakanath and broiler meat provided good appearance as well as flavour of indigenous fowl meat to the product. Experiments revealed that loaf prepared by replacement of meat with pulse as a binder and incorporation of 5% hydrogenated vegetable fat was rated good by the sensory evaluation panels. On evaluation of physico-chemical, microbial and organoleptic properties, it was found that the product could be safely stored up to 5 months at freezing temperature (-10°C).

CARI Marinated Chicken Breast Fillets



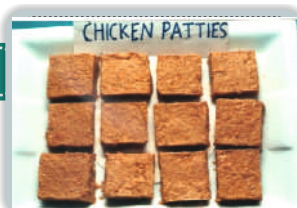
Marination and processing techniques for the development of delicious, heat-and-serve chicken breast fillets have been standardized. The marinade contained cereal starch, common salt, citric acid, polyphosphate and spice mix. The process developed consisted of tumbling of excised broiler breast fillets (*Pectoralis superficialis*) with marinade mix slurry and oven roasting. Blade tenderization followed by still marination of fillets for 60 min. produced product with comparable quality as an alternative to tumbling. Vacuum or nitrogen gas packed fillets in aluminium-foil based (PFP) laminated pouches could be safely stored for 3 weeks and 3 months under refrigeration ($4\pm1^{\circ}\text{C}$) and frozen (-18°C) storage as against 8 and 45 days long shelf-life of aerobically packed product, respectively.

CARI Egg-Meat Patties

Inclusion of meat in egg product formulations is not new to the egg products industry and such products have been found popular in many developed countries. On similar line, egg-meat patties have successfully been developed incorporating minced chicken meat in egg patty formulation. Other ingredients included textured soya flour, spice mix, onion-ginger paste and salt. This highly acceptable product was stable for up to 14 days under refrigeration ($5\pm1^{\circ}\text{C}$) and up to 90 days under frozen ($-18\pm1^{\circ}\text{C}$) conditions.

CARI Chicken Patties

Chicken patty can be prepared with meat from spent hens. The recipe has been standardized. It has been found from the studies that chicken fat can be used up to 12% in preparation of the product. The pre-cooked patties can be stored for 10 days under refrigeration (4°C) and 60 days in the frozen (-18°C) state.



CARI Intermediate Moisture Chicken Meat

An optimum infusion solution and processing technology for the preparation of intermediate moisture chicken meat (IMCM) for storage at room temperature has been standardized. Infusion solution recipe included humectants like common salt, glycerol and cane sugar, trisodium citrate, STPP and sodium benzoate. The process standardized for manufacturing IMCM consisted of a combination of humectants and hurdle technology viz. dipping of dressed chicken in 2% lactic acid dip for 2 min, dicing of meat into chunks, soak equilibration for 12 h in infusion solution and turmeric-garlic paste application prior to 4 h of oven drying (80±2°C). The finished product packaged in flexible-HDPE pouches has a shelf-life of 2 months at mean room temperature (24°C).



CARI Chicken Meat Spread

Chicken spread from pre-cooked, deboned and minced spent hen meat (85%) in combination with cereal starch, egg yolk, seasonings and permitted food additives was developed. The process, in brief, consisted of addition of 20% potable water to meat emulsion so as to improving spread ability prior to packaging and thermal processing in hot water bath to an internal temperature of 78±1°C for gelatinization of starch and stabilization of the emulsified product. The product can be safely stored for 12 and 60 days under refrigerated (5±1°C) and frozen (-18°C) storage, respectively.

CARI Chicken Gizzard Pickle

Chicken gizzard pickle is a comparatively cheap fast food with prolonged storage stability at room temperature. Small entrepreneurs may be attracted to produce and market the product by meager financial investment. Gizzard pickle (oil based as well as vinegar based) contained about 22% crude protein and 9 to 10% total lipids with calculated caloric yield ranging from 262 (vinegar based) to 282 (oil based). These pickles can be stored at ambient temperature (34°C) for 45 days during summer and rainy season and for 75 days in winter (26°C).



CARI Cooked Chicken Roll

Cooked chicken roll is a novel, ready-to-consume, fast food requiring mild warming before use. Processing is based on cut cost technology without compromising on nutritive value through use of processed/roasted gram flour. The product can be safely stored till 4 weeks under freezing emperature ($-18\pm 1^{\circ}\text{C}$) and for 2 weeks when kept under refrigeration temperature ($4\pm 1^{\circ}\text{C}$). Depending upon the mode and place of marketing, the profit may vary from 40 to 60% of the production cost.

CARI Spent Hen Meat Block

In order to explore an avenue for the disposal of less preferred spent (culled) hens, a by-product of layer industry, processing technique for preparing comminuted spent hen meat block was standardized. The optimum formulation consisted of 60% minced spent hen meat, 15% skin, gizzard and heart in natural proportion in combination with binders/extenders, edible oil, seasonings and 0.5% polyphosphate. Mild acidulation (0.4% lactic acid) of the meat emulsion appeared beneficial in lowering its pH without imparting perceptible sourness in the product. This treatment resulted in extending the refrigerated ($5\pm 1^{\circ}\text{C}$) shelf-life of the product up to 15 days as against 10 days for that devoid of added organic acid.

CARI Cooked Chicken Stock

It is an instant chicken meat product reconstitutable to curried chicken dish. It can be packed in ordinary, laminated aluminium foil pouches and can be stored upto 14 days refrigerated (5°C) or 28 days under frozen storage (-18°C) conditions.

CARI Chicken-Skin Meat Cutlet

Based on utilization of completely de-feathered chicken skin up to 30% (w/w) supplementary level with minced meat, the formulation methodology for processing chicken-skin meat cutlet has been standardized. The product can be consumed till 14 and 28 days of refrigerated ($4\pm 1^{\circ}\text{C}$) and frozen (-18°C) storage, respectively.

CARI Chicken Chunkalona

A process for preparing delicious chicken chunkalona from a combination of minced spent hen meat (60%), pre-marinated tender broiler meat chunks (25%) along with binders, extenders and seasonings was optimized. The product packaged in retortable 3ply laminated (polyester/foil/pp) pouches and then subjected to retort processing (1 kg/cm²; 30 min.) had microbiologically safe and organoleptically acceptable shelf-life of 2 weeks under ambient (25°C) storage.



CARI Poultry By-products based Pet Foods



A simple, cost-effective and efficient process for the conversion of poultry offals into nutritious and highly palatable food for pet dogs has been developed. The process, in brief, consisted of autoclaving of freshly collected and cleaned inedible chicken offals (excluding feathers) plus giblets (heart, gizzard and liver) at 1 kg/cm² pressure for 30 min. and 10 min. for blood, mincing the autoclaved material and blood coagulum in 5 mm sheath mincer, oven drying (70°C, 16 h), grinding, sieving, addition of 0.02% BHA as antioxidant, packaging in LDPE (300 G) pouches to prepare poultry by-product meal (PBPM). This PBPM at 15% level could be mixed with leaker egg liquid (20%), bakery waste (20%), maize flour (24%), wheat flour (10%), defatted soy flour (5%), soybean oil (5%), common salt (1%) and permitted food additives (0.02% BHA), 0.5% STP, 0.2% citric acid, 0.05% vitamin and mineral mixture to prepare dough of thick consistency. Forced oven drying (100±1°C, 8 h) of about 1.5 cm thick dough spread in stainless steel trays yielded finished rectangular shaped pet biscuits rich in nutrients. The finished product contained about 95% dry matter, 23.7% crude protein, 18% fat, 52% nitrogen-free extract, 4.8% ash, 0.77% calcium, 0.70% phosphorus, 0.82% lysine, 0.51% methionine and 4.2 kcal/g ME. Feeding 100 g of this pet food to adult pet dogs would contribute to 50 to 60% of daily maintenance requirements for ME, CP, Ca, P available lysine and methionine of pet dogs. The cost of this pet food worked out to be Rs 15/kg. Technology for preparing semi-moist intermediate moisture pet food, using humectants, has also been developed for young pups.

CARI Chicken Gizzard Snacks

In order to develop low cost convenient chicken meat products, the cost-effective method of preparing chicken gizzard snacks has been standardized. Such snacks made with 8% water medium garlic extract could be kept for 18 and 35 days under refrigeration (4±1°C) and freezing (-18°C) temperatures, respectively.

CARI Breast fillets

Breast fillets processed from using spent chicken which are very tough are more nutritious, tender and highly acceptable than the traditional fillets. The breast fillets can be prepared in microwave oven (grill)/ hot air oven and has shelf life of 15 days at refrigeration temperature (4±1 °C).



CARI Poultry Meat Finger Chips

Spent chicken meat (layer bird and breeder birds) can be well utilized to produce this product and may also attract a premium price. Prepared by using turkey and chicken meat. It contains functional ingredients like oat fibre, oregano and basil, apple peel paste and vitamin E which are beneficial to health. Method developed is very simple, only 5-6 min cooking time is required for processing in microwave. Can be stored up to 8 weeks at ambient temperature under aerobic packaging condition.



List of technologies commercialized (2019-20 to 2023-24)

SNo.	Name of technology	Name & address of contracting party	Date of signing of the MoU	Revenue (Rs.)
1	CARI Low Sugar Biscuit	M/s Anvesha Enterprises, Karamchari Nagar, Bareilly, U.P.	24/11/2021	12200/-
2	CARI Egg Rabri Malai	M/s Anvesha Enterprises, Karamchari Nagar, Bareilly, U.P.	24/11/2021	12200/-
3	CARI Multi Grain Egg Biscuit	Mrs. Jyoti Shukla W/o Mr. Sudhakar Shukla, R/o- HN-105, Ground Floor Camphor State Colony, Khalilpur, Thana –C B Ganj, Bareilly-243502 (Uttar Pradesh)	08/12/2021	12200/-
4	CARI Egg Kulfi	M/s Anvesha Enterprises, Karamchari Nagar, Bareilly, U.P.	08/12/2021	6100/-
5	CARI Multi-grain Egg Biscuit	M/s Daksh Alpine Herbs and Organics (DAHO) Pvt. Ltd. Haldwani	29/01/2022	12200/-
6	CARI Egg Rabri Malai	Mr. Mohd. Fazil S/o Saif Mo kamil H.No. 11, Urdu Mohalla Itawa, UP	17/02/2023	13800/-
7	CARI Multi Grain Egg Biscuit	M/s Dorpie Pvt. Ltd., Varanasi, Uttar Pradesh	02/11/2023	11800/-

II. Development of Novel Value Added Egg Product

CARI Egg Rasmalai

It is a nutritious and delicacy item for all age groups of people. In preparation, shell eggs are broken in a bowl and mixed well with milk powder until desired consistency achieved. On the other hand raw milk is heated in a pan and after generous heating sugar is added. The batter prepared previously is fall on heated milk as lumps which were then heat slowly. After completion of cooking cardamom and essence are added and chilled for two hrs before serving. This product contains less fat but higher protein content than traditional Rasmalai and can be stored up to 7 days at refrigeration temperature ($4\pm 1^{\circ}\text{C}$) under aerobic packaging condition.



CARI Egg Rabri Malai

Egg Rabri malai is a dessert made with whole eggs and milk that is sweet, delicious, and nutritious. A thick milk slurry was used to coat the sweet, spongy egg balls after they had been made with milk and refrigerated at a cold ($4-1^{\circ}\text{C}$) temperature before being served. This food has a unique texture that includes creamy milk slurry and egg balls with a high sensory attribute. The Gross Nutritional composition of multi grain biscuit contains 12-13% protein, 50 to 55% moisture, Fat (Ether extract) 12-15% and Carbohydrate 24-25% etc.



CARI EGG PEDA

In order to get premium price for eggs, this popular Indian sweet dish was prepared using vinegar, whole egg, milk Koha, skim milk powder, powdered Sugar, Oats Powder etc. The product content 28% of protein and can be stored up to 8 to 10 days in refrigerator temp. i.e. 4°C . CARI Egg Peda can be kept in ambient temperature for 3 to 4 days. This innovation makes famous Indian dish healthier and promote entrepreneurship. Different kind of essence like Vennila, Chocolate etc can be used to make Peda more in order to attract consumers.



CARI- Sweet Egg Sausages

For the development of sweet egg sausages, liquid whole egg contents and other functional ingredients such as clove powder and elaichi powder were incorporated and tested in multiple formulations in order to standardize their composition and proportion. The final standardized composition of the CARI-Sweet egg sausages ingredients % egg, Dry fruits, Powdered sugar, Milk powder, Clove powder, Elaichi powder etc. The developed product allows the incorporation of the whole egg and other functional ingredients that improve its overall acceptability and shelf-life can address the malnutrition issue and can also boost egg consumption especially in extreme climate conditions where the egg consumption usually declines, fulfilling the needs of the consumer as well as the seller.



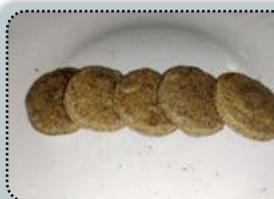
CARI Egg Kulfi

Egg Kulfi is a flavoursome, tempting and healthful product prepared from blending of whole egg contents with milk. The process involved formulation of two types of slurry with thick and thin consistency. The thick slurry provides granular texture and thin slurry provide creamy texture. After mixing of the contents of two slurries, the liquid is placed into the kulfi sockets and kept at frozen temperature. The Gross Nutritional composition of kulfi contains 12-13% protein, 50 to 55% moisture, Fat (Ether extract) 12-15% and Carbohydrate 24-25% etc.



CARI Low Sugar Egg Biscuit

Low-sugar egg biscuits are a form of egg-based product that is nutritionally enhanced and lower in sugar, making them ideal for diabetics. They also have a longer shelf life. Egg biscuits made with multi-grain flours are made using processing technologies. The technology entails creaming butter using an electric mixer. The contents of the homogenised boiled egg are combined with the dry ingredients (low sugar), and then the mixture is added to the creamy batter. Soft dough must first be produced before sheets can be formed, and then the sheets must be cut into the required shapes. After being baked in a microwave oven, the food is cooled to room temperature before being placed in an airtight PET container. The Gross Nutritional composition of multi grain biscuit contains 18-21% protein, 4 to 5% moisture, Fat (Ether extract) 18-20% and Carbohydrate 45-49% etc.



CARI Pickled Quail Eggs

A simple, cost-effective and efficient technology for the development of ready-to-eat pickled quail eggs has been developed and perfected for commercial exploitation. The process, in brief, consists of hard cooking and peeling of eggs, preparation of vinegar based pickling solution or oil-based pickle gravy, seasoning and packaging in flexible/laminated thermoplastic pouches without the pickling solution. The product can be safely stored for about 4 months at room temperature and a year under refrigeration (5°C). The shelf-life of pickled eggs could be extended upto 8 months at room temperature under nitrogen gas packaging in laminated pouches.



CARI Multi Grain Egg Biscuit

It is a nutritious egg product enriched with high protein, fibre and other health enhancing ingredients with longer shelf-life especially at ambient storage conditions. This processing technology involves formulation of Egg biscuits with multi-grain flours. The formulation technology involves creaming process of butter and sugar until the desired consistency is achieved. This is then followed by mixing all dry ingredients with contents of homogenized boiled egg. A creamy texture of butter and sugar mixed with prior mixer containing egg and other dry ingredients to make the soft dough. Then sheet formation followed by cutting into desired shape, baking convection microwave oven and preserve in air tight PET jar after proper cooling to room temperature. The Gross Nutritional composition of multi grain biscuit contains 15-20% protein, 4 to 5% moisture, Fat (Ether extract) 12-16% and Carbohydrate 55-59% etc.



CARI Chicken Egg Sausages

Highly nutritious and tasty delicacy that can be stored for 12 days at 4 °C temperature.



CARI Salted Chicken Eggs

A simple product for preparation of intact salted chicken shell eggs. No need to add salt after boiling.



CARI Baked Egg

Process of preparing *baked egg* has been standardized. Baked Egg is a nutritious and versatile snack food ideal for the breakfast meal. It offers a potential market at growing fast food outlets. Most acceptable baked egg can be prepared using 70% liquid whole egg, 12% grated cheese and 5% skim milk solids with finely chopped onion, ginger paste, chopped green pepper and salt at 5, 5, 2 and 1% levels respectively. The finished product was also found to have satisfactory microbiological quality. The cost of formulating one processed baked egg of 15.5 cm diameter and 2 cm thickness weighing about 240 g was calculated to Rs. 29.70. The shelf life studies indicated that baked egg was acceptable for 12 days in vacuum and 10 days in aerobic packs at refrigerated storage with satisfactory physico-chemical and microbiological quality.



CARI Egg Tikka

Process of preparing egg tikka has been standardized. Egg tikka prepared with coatings containing mashed potato, refined rice flour, bread crumbs, black pepper and salt at 77, 5, 15, 1.5 and 1.5% levels respectively was organoleptically most acceptable and had a refrigerated shelf life of 20 days in vacuum and 18 days in aerobic packaging with satisfactory microbiological and organoleptic quality. The cost of formulating one processed egg tikka weighing about 80 g was calculated to Rs. 5.60.



CARI Egg Cutlet

Process of preparing egg cutlet has been standardized. Egg cutlet prepared with 42% egg and 40% minced chicken meat with 6.7% grated cheese, 6.0% onion paste, 2.0% refined wheat flour, 0.10% mustard powder, 2.0 % spice mix, 0.8% salt and 0.2% each of white vinegar and soy sauce was most acceptable and had a refrigerated shelf life of 14 days in vacuum and 12 days in aerobic packaging with satisfactory microbiological and organoleptic quality. The cost of formulating one processed egg cutlet weighing about 125 g was calculated to Rs. 21.70.



CARI Albumen Rings

Albumen rings are low fat egg snack food prepared by steam cooking blended egg albumen in ring molds, battering and breading the coagulated albumen and deep fat frying. The ready-to-eat rings contained 11.5% protein and merely 3.2% fat. This product can be safely stored by refrigeration ($4\pm 1^{\circ}\text{C}$) for 18 days in vacuum and 12 days in aerobic pack.



CARI Egg Rings

Egg rings are egg snack food prepared by steam cooking of blended liquid whole egg in ring molds, then battering and breading the coagulated rings and deep fat frying. The batter-breaded rings contained 12.3% protein, 11.2% fat and had a refrigerated ($4\pm1^{\circ}\text{C}$) shelf-life of 12 days in aerobic packaging in polyethylene pouches.



CARI Egg Pancakes

Egg pancake is a convenience egg-rich product and can be popularized as a complete breakfast meal at homes as well as at growing fast food outlets. Ingredients used for preparing highly acceptable, light, fluffy and spongy pancakes include liquid whole egg, milk, wheat flour, sugar and baking powder.

The pancakes had a refrigerated shelf-life of 12 days in vacuum packaging without any detectable deteriorative changes.



CARI Egg Patties

Processing methodology and recipe for preparing egg patties has been standardized. The highly acceptable formulation included liquid whole egg, mashed potato, texturized soya flour, non-fat dry milk, spices, condiments and salt. Steam-cooked patties had a refrigerated shelf-life of 14 days in vacuum and 12 days in aerobic packaging, while at frozen temperature ($-18\pm1^{\circ}\text{C}$) the product was stable for 90 days in vacuum and 80 days in aerobic packaging.



CARI Egg-Crust Pizza

Process of preparing egg-crust pizza has been standardized. The pizza prepared with either foamed all-albumen crust, albumen-flour-oil crust or albumen-skim milk solid-oil crust was rated best in sensory quality. The egg-crust pizza base has a refrigerated (5°C) shelf-life of 6 days in vacuum and 4 days in aerobic packaging. This product can be popularized as a meal or snack at fast food outlets.



CARI Low-Fat Egg Patty

A low-fat egg patty was developed, especially for health conscious consumers. The formulation ingredients include liquid egg albumen, mashed potato, textured soya flour, non-fat dry milk, salt, spices and condiments. The ready-to-eat fried patties contained 13.6% protein and merely 2.5% fat.

CARI Egg Roll

Egg roll is a baked and breaded product with scrambled egg and chicken sausage filling. This product is suitable for either meals or in-between meal as snacks. The most acceptable recipe of egg filling consisted of 80% scrambled egg with 20% ground chicken sausage. This product can safely be stored by refrigeration (5°C) for 8 days in vacuum and 6 days in aerobic packaging.

CARI Battered Fried Egg

Battered fried egg is a hard cooked peeled egg, moulded with chicken sausage mixture around its plain surface, rolled in fine dry bread crumbs and deep-fat fried. It is a value-added convenience egg product in fast food establishments. Technology for preparing battered fried egg has been standardized. Shelf-life studies have shown that the product was microbiologically satisfactory and organoleptically acceptable for up to 12 days at refrigeration temperature.



CARI Egg Strip

Egg strip is a nutritious and versatile snack food ideal for person of all ages. It is made from blended liquid whole egg combined with soya protein and spices. Egg strips are stable for 16 days in vacuum and 10 days in aerobic pack at refrigeration temperature (4±1°C) with a formulation cost of Rs. 40/- per kg.



CARI Stuffed and Coated Egg

Processing techniques for preparing nutritious and delicious stuffed and coated egg have been standardized. The hard-cooked and peeled chicken egg was cut in half along the long axis, yolk removed, hallow of each half was filled with yolk and chicken meat mixes and wrapped in a thin layer of chicken meat emulsion and deep fried. The refrigerated (4±1°C) shelf-life of stuffed and coated egg was 18 days in vacuum and 16 days in aerobic pack.

CARI Egg Waffles

Process of preparing egg waffles was standardized. Egg waffles prepared from liquid whole egg, wheat flour and granulated wheat had an ambient shelf-life of 4 days in vacuum and 3 days in aerobic pack as against 10 and 6 days in respective packs at refrigeration temperature.



CARI Low Sodium Salted Chicken Eggs

A simple technique for preparation of intact low sodium salted chicken shell eggs has been developed which obviates the need for using salt with low level of sodium prior to serving boiled eggs and hence a convenient product for egg vendors.

CARI Instant Emu Egg Noodles

High nutritional value with vitamins and essential amino acids that is lacking in cereal based noodles. Can be stored for 3 months at room temperature under aerobic packaging condition.



List of technologies commercialized (2019-20 to 2023-24)

SNo.	Name of technology	Name & address of contracting party	Date of signing of the MoU	Revenue (Rs.)
1	CARI Quail Egg Pickle	M/s Viraksh Pharmaceutical & Foods Industries Pvt. Ltd., New Delhi	28/02/2022	6100/-
2	CARI Oil Based Spicy Chicken Meat Pickle	M/s Daksh Alpine Herbs and Organics (DAHO) Pvt. Ltd. Haldwani	25/03/2022	12200/-
3	Bundled Licensing Agreement for Commercialization of CARI Egg Ras Malai, CARI Chicken Meat Bites, CARI Egg Kulfi & CARI EGG Waffles	Mr. Mohd. Fazil S/o Saif Mo kamil H.No. 11, Urdu Mohalla Itawa, UP	17/02/2023	23200/-
4	Bundled Licensing Agreement for commercialization of Chicken Patties, CARI Butterd Fried Quail, CARI Functional Chicken Seek Kababs	Mr. Mohd. Fazil S/o Saif Mo kamil H.No. 11, Urdu Mohalla Itawa, UP	17/02/2023	23200/-
5	CARI CHICKEN BADDI	Mr. Mohd. Fazil S/o Saif Mo kamil H.No. 11, Urdu Mohalla Itawa, UP	09/06/2023	11800/-
6	CARI Meat Pickle	Mr. Mohd. Fazil S/o Saif Mo kamil H.No. 11, Urdu Mohalla Itawa, UP	09/06/2023	17700/-

CARI-Herbigrow



Poultry is the most widely consumed meat in India. Now consumers' shows much interest towards antibiotic-free, naturally-produced poultry meat. Heat and humidity affects growth and production of poultry. To overcome the problem of stress, common practices are addition of some prebiotic, probiotic and some antibiotic in lower doses. However, addition of antibiotic causes many problems to birds and consumer too. To overcome this problem A product namely, CARI - HERBIGROW has been developed which contain herbs, leaves, seeds and roots. These herbs contain many phenolic compounds, flavonoids, alkaloids, saponins, phenolic acids, terpins, essential oils, curcumin etc. All these compounds alone or in combination function as antioxidants, immune enhancer and stress reducer.

The benefit CARI – HERBIGROW

1. It reduces heat stress by 17% in broiler chickens.
2. It may be used as natural growth promoter (replacement of AGP) in broiler feed resulting 5% increase in body weight as compared to control group.
3. It helps in reduction of lipid oxidation 30% in meat leading to better keeping quality.

The inclusion of HG at 5g/kg improved the physiological, immunological, and gut health of broiler chickens



CARI- Herbistressmin



In India Intensive poultry farming has gain in phenomenal rise in urban as well as rural sector but the adverse effect of increased environmental temperature during summer season on avian industry is great global concern. Heat and humidity affects growth and production of poultry. Heat Stress not only causes suffering and death in the birds also reduced or lost production (meat and egg). To overcome this problem A product namely, CARI - HERBISTRESSMIN has been developed.

CARI-HERBISTRESSMIN is a phytogetic feed additive that works as a stress reliever and natural defence enhancer. It found to control effect of heat stress as well as improve immunity. This formulation contains phytoconstituents like Polyphenols ,Beta- carotene , limonene, flavonoid Vitamin C, Vitamin A, folate, calcium, magnesium and potassium. It is having very good antioxidant properties. It also promotes egg production, cell mediated immunity and helps in reducing the harmful effects of stress. This hytogenic feed additive is a heat stable animal feed additive and can be directly added to the feed.

The Benefit of CARI-HERBISTRESSMIN is:

1. It may be used as natural growth promoter in broiler feed resulting in 2 % increase in BW as compared to that in control group.
2. Improve egg production by 4.05% nin laying hens and also improve yolk colour.

This phytogetic feed additive is a heat stable feed additive and can be directly added into the feed.

The inclusion of CARI-Herbistressmin @ 4 g/K feed for Broiler/Layer



SNNo.	Name of technology	Name & address of contracting party	Date of signing of the MoU	Revenue (Rs.)
1	CARIHERBIGROW and CARIHERBISTRESSMIN	M/s JS Water Energy Life Co. Gurugram, Haryana	01/09/2023	162000/-

III. Other Technologies Offered

CARI Poultry Semen Diluent Technology



Poultry semen is highly concentrated and low in volume. It is further concentrated after ejaculation due to evaporation of water from semen at room temperature that makes impractical to handle it in undiluted form. This event leads to killing of spermatozoa in fresh semen that requires immediate dilution of semen for achieving higher fertility in poultry through artificial insemination (AI) technology. To handle the above said problem of poultry semen and its maximum utilization using AI technology, dilution of semen is the only alternate. This diluent does not require the adjustment of pH because the composition of the diluent is prepared in such a way that the desired pH (7.20) and osmotic pressure (332 m.Osm/kg H₂O) can be achieved automatically. Diluent is comprised of nutrients, osmotic and buffering agents which provides an ideal environment for the survival of spermatozoa outside of the body. Using this diluent, highly concentrated chicken/poultry semen from a single valuable or proven sire can be diluted several folds for inseminating large number of females through the application of AI. In this way diluent will increase the semen volume thereby permit the uniform distribution of spermatozoa in media resulted very good fertility by AI in hens. In addition, diluent prolongs the sperm survival of semen in vitro condition (24-48 hrs). By virtue of the diluent, the technique of the A.I presently is employed as biggest and cheapest tool for improving the poultry production associate with the reduction of the cost of poultry breeding by maintenance of less number of males. Using the technique of semen dilution, semen can be preserved for several hours without signification loss of fertilizing ability. In India, poultry is 90% dominated by chicken. Hence, this diluent is mainly targeted to the chicken. However, it also works well in other poultry species like turkey, duck and guinea fowl etc.

Benefits:

- The services of superior male can be used maximally by artificial insemination technique which is not possible under natural mating.
- CARI poultry semen diluent reduced the number of males in flock. This would reduce the feed and managemental cost.
- CARI poultry semen diluent can be utilized for economic production of various poultry species

SNNo.	Name of technology	Name & address of contracting party	Date of signing of the MoU	Revenue (Rs.)
1	CARI Poultry Semen Diluent	M/s Skylark Hatcheries Pvt. Ltd., Haryana	05/01/2022	1003000/-

CARI- Toxomin



The Food and Agricultural Organization (2019) reported that up to 25% of the world's food cereals and a greater percentage of the world's animal feed was significantly contaminated with mycotoxins. Mycotoxin contamination occurs mainly through the ingestion of infected grains such as maize, wheat, groundnuts, sorghum, etc when used to formulate animal diets. In tropical countries like India, the incidence of high humidity and moisture, poor harvesting techniques, ineffective drying facilities and unseasonal rainfall have provided favourable conditions for the fungal invasion of feed tend to result in the proliferation and production of toxic metabolites like aflatoxins. CARI-Toxomin is a herbal toxin binder for protection of feed and feed ingredients from toxin. It is prepared by locally available herbals ingredient which is mostly used of our kitchen in daily life. CARI-Toxomin contains gallic acid, ascorbic acid, phenolic compounds, curcumin, and enzymes. Therefore, herbal toxin binder CARI-Toxomin serves as suitable candidates for more effective and safe regulation of the fungus and its toxins.

The benefit CARI- TOXOMIN

1. It ameliorates toxicity up to 90% in feed of broiler chicken
2. It was used as natural toxin binder which replaces the costly market available inorganic toxin binder.
3. It helps to improve the production performance and increase the income generation of poultry farmer.
4. Decrease the mortality.

Administration Level:

- ✓ 1.5 kg per tonne of feed for routine use.
- ✓ 2.0 to 2.5 kg per tonne of feed in suspected cases.
- ✓ or as directed by the nutritionist.



Low Cost Poultry Incubator From Recycled Waste

This technology offers an effective alternative to the costly incubators utilizing the scrap produced in the form of discarded consumer durables such as refrigerators with required modifications. A low budget incubator has been fabricated utilizing the waste material capable of hatching 400-500 chicken eggs. The required components can be easily sourced to fabricate these low cost incubators suitable for rural poultry farming on DIY (Do It Yourself) basis. The main feature of this technology is that it does not require complex technical knowhow and costs meagre amount of 5000-6000. This technology allows egg setting and hatching activities simultaneously in single cabinet with overall hatchability of 85%. There is a provision for running on DC/AC supply with minimum power of 300 watts. Inverter/battery/solar panel power source is sufficient to run the equipment during power shortages/failures.



SNo.	Name of technology	Name & address of contracting party	Date of signing of the MoU	Revenue (Rs.)
1	CARI Portable Poultry Incubator	M/s Grandlay Electrical & Eng. Co , Bareilly, UP (Shakir Hussain)	09/06/2023	35400/-

CARI-DAC Biogas Technology

This technology aims for all weather biogas generation using poultry excreta as an exclusive source with no addition of cow dung. It is an eco-friendly technology that reduces water foot prints as slurry in digester is being re-utilized as dilutor for poultry excreta. This DAC technology generates one cubic meter of biogas from 12-13 to 19-20 kg poultry excreta in summer and winter seasons, respectively. One cubic meter biogas is sufficient for cooking (blue flame) 3-times meals of an average family comprising of 4-5 members. Besides, the generated bio-gas can be utilized as a heat sources during brooding. Spent slurry, byproduct generated from this technology has good manure value and germination potential and can be easily applied in agricultural fields for organic crop production without burning effect on plants which is a common problem with crude poultry excreta. The excreta of 5000 layers birds has capacity to produce approximately 4100 kg biogas per annum whose market value will be around ` 1.31 lakh (@ `32.00 per kg). There is potential to produce around 128 tonnes of manure from spent slurry of bio-gas. The value of this manure will stand around `2.56 lakhs on urea, phosphate, potash and micronutrient equivalence basis. Therefore, this technology has great potential of **value addition to the tune of 5-6 times** from invaluable poultry excreta. Besides, generating the financial gains to the poultry farmer, this technology has enormous positive impact on environment by drastically reducing pollutants, bad odour and flies thereby also helping in accomplishing the **Sawach Bharata Mission**.



Bio-gas-collector

Anaerobic digester

Bio-gas cylinder

Bio-gas compressor



Bio-gas plant set up with utilization as a cooking gas (blue flame)

CARI Comfort

Transportation stress is an important issue that needs to be addressed at the earliest, taken into consideration of both rearing and marketing of broiler chickens. The pathophysiology of the stresses is mainly due to the appearance of thermal discomfort, dehydration, energy depletion, and fatigue which results in weight loss. Other factors like bruises, haemorrhages lead to vascular disturbances, acid-base imbalance & electrolyte changes affect birds. Catching methods during loading but unloading, vehicle condition, design of cages and ventilation system, etc. predispose chickens to more stress. Therefore, this product will help prevents percentage body weight loss & also will take care of their wellbeing. Our product will protect the loss of proteins and electrolytes from meat because of drip loss process which assures the good meat quality with longer Shelf-life. This package insures humane slaughter to birds as well as hygienic meat to consumers. This package when given to birds via drinking water before 3 days of transportation will induce immunity and mitigate inflammatory changes that occur due to stress. This will help farmers as mode of application is easy and do not require any specific techniques and skills.



The benefits of CARI-COMFORT –

1. It will reduce body weight loss up to 6-7%.
2. CARI-COMFORT will improve overall welfare of transported birds.
3. It will improve meat quality and reduce the stress which is verified by blood profile H:L ratio and corticosterone level of transported birds.

The supplementation of CARI-COMFORT should be done 72 h before transport at dose level of 4.2 g/L.

CARI Egg Shield



The egg production in India has been steadily increasing due to factors such as population growth, urbanization, and the growing awareness of the nutritional benefits of eggs. Eggs are known for being an affordable, unadulterated, and easily available source of high-quality protein, vitamins, minerals, and healthy fats. However, eggs are also highly perishable, and their nutritional benefits start to decline after a few weeks of normal storage. To meet the demand for extended shelf life of eggs, we have developed a herbal solution for table eggs. This solution, when applied or sprayed on the outer surface of eggs before storage, acts as a barrier, preventing the entry of external microbes into the egg. It also helps seal the pores of the egg, reducing the outflow of CO₂. The application of this solution is simple and does not require any specific techniques or skills, benefiting farmers, vendors, and middlemen.

By using this herbal solution, we aim to increase the durability of eggs and reduce the chances of spoilage or deterioration. This will not only help in minimizing wastage but also ensure that consumers can enjoy eggs with preserved nutritional benefits for a longer period. The developed solution significantly benefit the poultry industry by extending the storage ability of table eggs, thereby reducing spoilage and deterioration caused by microbial activity and other factors. By implementing this product, losses incurred during storage can be minimized, resulting in positive economic outcomes for farmers, wholesalers, retailers, and others involved in the egg business. Additionally, consumers enjoy better-quality eggs for a longer period. This product has the potential to enhance the overall efficiency and sustainability of the egg industry while meeting the demands of consumers for longer-lasting, high-quality eggs.

Giri Gram Takniki Park, For Enhancing Farmers Income

A “Giri Gram Takniki Park” for Backyard Poultry Production Integrated with Moringa, Vermiculture, Maggots, Seasonal fodder and other technologies has been established in almost one acre land (64mx64m) with capacity of 3600-4000 birds during 2019-20. Backyard chicken varieties comprising of Kadaknath, CARISHyama, CARISaloni, Aseel Peela and CARINirbheek are being maintained with almost 45-52% daily egg production. The houses for night shelter with dimensions of 20X15 feet has been constructed using low cost materials like bamboo, thatch, polythene sheet, fiber sheet on iron pipe frame. Almost 500 moringa plants have been planted in about 2000 sq. m. area which is also used for cultivation of Berseem in winter and Cowpea/other suitable crop in summer season. Five vermi-beds (3ft x 10ft), four maggot incubators (250 lit each) and 2ft x 30ft floor maggot bed has been established for generating alternate feeding resources of birds. Birds are being fed with about 50g seasonal green fodder and moringa + earthworm (10g) +maggots (10g) +50g compound feed along with 7-8 hrs free range foraging in one acre land. The egg and meat can be sold in suitable packing with tagline like, “Organic Poultry egg fed on Moringa”. This takniki park is acting as ready reckoner for budding poultry entrepreneurs. Framers with minimum inputs can easily get more returns, which ultimately help to strengthen them economically and socially.



CARI Computer Softwares For Feed Formulation

Make Feed Poultry and Make Feed Dairy, comprehensive feed formulation softwares, developed by combining the expertise, knowledge and standards of recent technologies are very useful for poultry and dairy entrepreneurs. These are window based unique softwares for efficient balanced formulation of feed for a wide variety of poultry birds like layer and broiler chickens, quails, guinea fowls etc. and dairy animals like cattle and buffaloes for maximum production performance. Make Feed is a user-friendly and persons having little computer knowledge can utilize it effectively. It provides information on nutritive values for a wide range of feed ingredients along with the maximum inclusion level for each ingredient. The users have options to edit the complete database of feed ingredients and modify suitably, add or delete particular feed ingredient due to change in nutritive composition and availability of feed ingredients.

The cost of the software package is Rs. 3500/- only for Make Feed Poultry, which includes the compact disc containing the software and a comprehensive user manual. For purchase send a demand draft of Rs. 3500/- in favor of the Director, CARI, Izatnagar-243 122, U.P. payable at State Bank of India, CARI Branch (Code 7027). Also provide detailed address for sending through post and our record.



CARI Breaking the seasonality of reproduction in Pearl variety of Guinea fowl

Guinea fowls are seasonal birds with average egg production of 90-110 eggs from March to September i.e. during the period of longer day length and intense sunlight. Seasonality of reproduction/ egg production is therefore, a major problem limiting its egg production and hindering large-scale commercial production of Guinea fowl. Dietary and photoperiod strategies were used to break the seasonality of reproduction during winter (December-March) aiming for reducing the age at first egg thereby extending the length of laying period and ultimately improving the egg production. Exposure of guinea fowls to 18 h photoperiod with dietary inclusion of 20% protein, 120 ppm of Vitamin E and 800 µg of Selenium triggers onset of production with 53-56 % hen day egg production, reducing the age of sexual maturity to 21 wk, 71% fertility and 76% hatchability.



**CARI
Services**

QUALITY ASSURANCE AND ANALYSIS OF FEEDS AND FEEDSTUFFS

The Nutrition Division is equipped with well furnished laboratories with modern equipments. Various feed ingredients and compounded feed/concentrates received from the industry, government agencies and farmers are being examined for proximate principles, minerals, adulterants and toxicants.

Sl. No.	Tests	Rate/Test (Rs.)
1.	Moisture	100
2.	Crude Protein	250
3.	Crude Fiber	250
4.	Ether Extract	250
5.	Total Ash	200
6.	Acid Insoluble Ash (Sand & Silica)	250
7.	Calcium	250
8.	Total Phosphorus	250
9.	Complete Analysis (Sl.No. 1 to 8)	1500
10.	Common Salt (sodium Chloride)	250
11.	Non-protein Nitrogen	300
12.	Urease Activity	300
13.	Tannins	300
14.	Glucosinolates	400
15.	Aflatoxin B1	400
16.	Ochratoxin A	400
17.	Zinc	250
18.	Manganese	250
19.	Iron	250
20.	Copper	250
21.	Protein Digestibility	500
22.	Protein Solubility	500

Replacement of yellow maize (3350kcal/kg ME) from other un-conventional energy rich feed ingredients in broiler and layer diets-

Un-conventional energy rich feed ingredients	Metabolizable energy (kcal/kg)	Replacement levels (% w/w)	
		Broiler ration	Layer ration
Sorghum (Jowar Safed)	3100	75	50
Sorghum (Jowar Brown)	3000	50	25
Sorghum (Jowar Red)	2700	10	10
Broken rice/rice kani	3000	30	13
Pearl millet (Bajra)	2850	50	25
Damaged wheat	3100	40	30
Foxtail millet (Kangani)	2900	30	25
Little millet (Sama)	2900	20	20
Kodo millet	2800	15	15
	2800	25	30

Replacement of solvent extracted soybean meal (48-50% CP) from other un-conventional protein rich feed ingredients in broiler and layer diets-

Un-conventional protein rich feed ingredients	Protein (%)	Replacement levels (%)	
		Broiler ration	Layer ration
Roasted guar Korma	50-52	8	12
Azolla meal	25-27	5	7.5
Cotton seed meal	34-36	8	10
Rice based DDGS	45-47	8	12
Corn based DDGS	25-27	10	15
Rice gluten meal	46-48	10	15
Rape seed meal	36-38	7	10
Sunflower seed meal	24-26	15	20
Sesame meal (Til cake)	36-38	15	20
Safflower seed meal (Kusum cake)	23-25	5	10
De-oiled maize germ meal	22-24	8	10

Rate of Germplasm

PARENT STOCK (PURE LINE)

A. Fertile Eggs

1. Layer	Rs. 30/egg
2. Broiler & Desi fowl	Rs. 35/egg
3. Guinea fowl	Rs. 25/egg
4. Turkey	Rs. 50/egg
5. Japanese quail	Rs. 12/egg

B. Embryonated Eggs

1. Layer, Broiler & Desi Fowl	Rs. 45/egg
2. Guinea Fowl	Rs. 30/egg
3. Turkey	Rs. 55/egg
4. Japanese Quail	Rs. 15/egg

C. Day-old chicks

1. Broiler & Desi Fowl	Rs. 50/chick
2. Layer	Rs. 40/chick
3. Guinea fowl	Rs. 32/chick
4. Turkey	Rs. 65/chick
5. Japanese quail	Rs. 18/chick

D. Young & Adult Stock

a) Layer

1. 1-07 days DOC+	Rs. 3/day
2. 8-14 days	Rs. 80/chick
3. 15-21 days	Rs. 90/chick
4. 22-42 days	Rs. 105/chick
5. 43-63 days	Rs. 120/grower
6. 64-84 days	Rs. 145/grower
7. 85-112 days	Rs. 170/grower

b) Broiler

1. 1-07 days DOC+	Rs. 3/day
2. 8-14 days	Rs. 95/chick
3. 15-28 days	Rs. 130/chick
4. 29-42 days	Rs. 160/chick
5. 43-56 days	Rs. 190/chick
6. 57-70 days	Rs. 220/chick
7. 71-84 days	Rs. 260/chick
8. 85-112 days	Rs. 300/chick

c) Guinea Fowl

1. 1-07 days DOC+	Rs. 3/day
2. 8-21 days	Rs. 80/chick
3. 22-42 days	Rs. 100/chick
4. 43-56 days	Rs. 120/chick
5. 57-90 days	Rs. 150/chick
6. 91-112 days	Rs. 170/chick

d) Desi Fowl

1. 1-07 days DOC+	Rs. 3/day
2. 8-21 days	Rs. 90/chick
3. 22-42 Days	Rs. 105/chick

4. 43-56 days
5. 57-84 days
6. 85-112 days (Male)
7. 85-112 days (Female)

Rs. 130/chick
Rs. 180/grower
Rs. 230/grower
Rs. 225/grower

e) Japanese Quail

1. 1-7 days DOC+
2. 8-14 days
3. 15-28 days
4. 28 days and above

Rs. 3/day
Rs. 50/chick
Rs. 60/grower
Rs. 70/adult

e) Turkey

1. 1-07 days DOC+
2. 2 wk. old poult
3. 3-4 wk. old poult
4. 5-6 wk. old poult
5. 7-8 wks. old poult
6. 9-12 wk. old poult
7. 13-16 wk. old poult
8. >16 wk. (Male & Female)

Rs. 3/day
Rs. 120/poult
Rs. 140/poult
Rs. 190/poult
Rs. 240/poult
Rs. 400/poult
Rs. 600/poult
Rs. 180/Kg

E. Adult Stock (above 16 weeks/ 112 days)

1. Layer Male
2. Layer Female
3. Desi Male
4. Desi Female
5. Broiler Male
6. Broiler Female
7. Guinea Fowl Male
8. Guinea Fowl Female
9. Turkey (both sexes)
10. Japanese quail

Rs. 280/each
Rs. 220/each
Rs. 450/each
Rs. 300/each
Rs. 350/each
Rs. 300/each
Rs. 230/each
Rs. 200/each
Rs. 1000/male & 800/female
Rs. 90/each (4 wk. and above) (both sexes)

2. Commercial /Mixed Stock
A. Fertile Eggs

1. Layer
2. Broiler
3. Desi Fowl

Rs. 20/egg
Rs. 20/egg
Rs. 20/egg

B. Embryonated Eggs

1. Layer
2. Broiler
3. Desi fowl

Rs. 25/egg
Rs. 25/egg
Rs. 25/egg

C. Day-old chicks & Young stock

1. Layer day-old (Straight run)
2. Broiler day-old (Straight run)
3. Desi Fowl day-old (Straight run)

Rs. 30/chick
Rs. 30/chick
Rs. 30/chick

D. Young & Adult Stock
a) Layer
CARI-Devendra WLH
CARI-Sonali crosses CARI-Priya

1. 1-07 days DOC Price +
2. 8-14 days Rs. 70/chick
3. 15-21 days Rs. 85/chick
4. 22-42 days Rs. 100/chick

Rs.3/day DOC Price + Rs.3/day
Rs. 65/chick
Rs. 80/chick
Rs. 90/chick

5. 43-63 days Rs. 120/grower
6. 64-84 days Rs. 140/grower
7. 85-112 days Rs. 170/grower
8. 112-140 days Rs. 200/adult
9. Above 140days (Male)
10. Above 140 days (Female)

b) Desi

1. 1-07 days DOC Price +
2. 8-21 days
3. 22-42 days
4. 43-56 days
5. 57-84 days
6. 85-112 days (Male)
7. 85-112 days (Female)
8. 113-140 days (Male)
9. 113-140 days (Female)
10. >140 days (Male)
11. >140 days (Female)

c) Broiler - CARI-Dhanaraja/CARI-Vishal

1. 1-07 days DOC Price +
2. 8-14 days
3. 15-21 days
4. 22-28 days
5. 29-35 days
6. 36-42 days
7. 43-56 days
8. 57-70 days
9. 71 to 84 days
10. 85 to 98 days
11. 99 to 112 days
12. 113 to 140 days
13. Above 140 days & above

3. Rate of Live Birds in KG:
40 week above old/Culled/experimental birds;

- | | |
|----------------|---------|
| 1. Broiler | @80/kg |
| 2. Layer | @80/kg |
| 3. Guinea Fowl | @80/kg |
| 4. Turkey | @180/kg |

4. Rate of Litter Layer/Broiler:

- | | |
|-----------------------------|-------------|
| 1. Mix litter with pedigree | @8/ litter |
| 2. Only fecal litter | @10/ litter |

5. Rate of ABI Book:

- | | |
|---|-----------|
| 1. Entitled "Unlocking the secrets of Commercial Poultry Farming, Processing and Marketing" | @700/book |
|---|-----------|

- | |
|-----------------------------|
| Rs. 100/chick |
| Rs. 110/grower |
| Rs. 125/grower |
| Rs. 145/adult |
| Rs. 275/adult Rs. 200/adult |
| Rs. 225/adult Rs. 175/adult |

- | |
|----------------|
| Rs. 3/day |
| Rs. 75/chick |
| Rs. 95/chick |
| Rs. 120/chick |
| Rs. 170/grower |
| Rs. 220/grower |
| Rs. 195/grower |
| Rs. 295/ adult |
| Rs. 220/adult |
| Rs. 320/adult |
| Rs. 245/adult |

- | |
|-----------------|
| Rs.3/day |
| Rs. 65/chick |
| Rs. 80/chick |
| Rs. 90/chick |
| Rs. 110/chick |
| Rs. 140/grower |
| Rs. 160/grower |
| Rs. 170/adult |
| Rs. 190/grower |
| Rs. 220 /grower |
| Rs. 245/grower |
| Rs. 270/ grower |
| Rs. 400/adult |

Contact Details:

Dr. Jaydip Rokade, Scientist

E-Mail: carisupply01@gmail.com

Mobile:+91-7417043972 or +91-7500394137

HRD Activities

SHORT TERM TRAININGS

The institute organizes two types of training programs on various aspects of poultry farming for different categories of persons. The details of training programs are given below.

A) REGULAR TRAINING PROGRAMMES

1. Farmers' training:

It is an orientation training to start poultry farming. Three batches of short-term training on poultry production management (6 days duration) are being organized at the Institute every year. Any literate person is eligible for enrolling to the course. Enrolment fee is Rs. 1000/- for General/OBC candidates and Rs. 600/- for SC/ST candidates only. Application forms can be obtained by writing to the Head, Technology Transfer Section, CARI, Izatnagar, Bareilly 243 122 (U.P.) or can be downloaded from the website. (https://icar.org.in/cari/Application_Form.pdf)

2. In-service personnel training

Specialized training courses on poultry farming are organized at the Institute for in-service personnel of various State Government Departments to update them with the latest technological know.

3. Sponsored training courses

Sponsored training courses on poultry production management are being organized time to time on demand for the farmers nominated by Govt. Dept and NGOs.

Contact Person: Head, Technology Transfer, CARI, Izatnagar-243122 (UP) INDIA
Phone: 0581-2300204, E-mail: mpsagar59@rediffmail.com / cari_director@rediffmail.com ;
FAX: 0581-2301321

B) SPECIALIZED TRAINING COURSES

Institute offers following "*Specialized Training Courses*" for Veterinary Officer/ Technical Personnel of various Departments/ Institutions including Public/Private Organizations and persons dealing with poultry production/ processing/entrepreneurial development & project formulation,

Specialized Course Calendar (Every year)

S.No	Name of the Course	Period (approximate dates)
01	Poultry Hatchery Operation	April 13-25
02	Broiler Production	May 11-23
03	Guinea Fowl Production	June 15-27
04	Layer Production	July 13-25
05	Poultry Diseases & Biosecurity Measures	August 17-29
06	Poultry Entrepreneurial Development & Project Formulation	September 14-26
07	Poultry Feeding & Quality Control	October 5-17
08	Artificial Insemination in Poultry	November 16-27
09	Poultry Processing & Products Technology	December 7-19
10	Backyard Poultry Farming	January 11-23
11	Turkey Production	February 15-27

Duration: Each specialized training is of 6 working days duration.

Course Fee: The fee for each course is Rs. 6000/person.

Eligibility: For all courses, the candidate must be a graduate in any stream.

How to Apply: Brief resume supported by educational records and forwarding/sponsoring note from the employer may be sent to the Director, CARI, Izatnagar, Bareilly- 243122 (UP) or e-mail to director.cari@icar.gov.in / cari_director@rediffmail.com / drbiswas007@gmail.com.

Boarding & Lodging: The candidate may avail the boarding and lodging facilities at CARI Trainees Hostel-cum- Guest House on the payment basis (@ about Rs. 450/person/day) as per ICAR norms.

Fee Payment: Selected candidates should deposit the Course Fee (Rs 6000/person/course) through Cash/DD drawn in favour of Director, CARI, payable at SBI, CARI Branch (Code No.7027), Bareilly.

Certificate: The trainees will be awarded with a Training Certificate from the Director, CARI, Izatnagar after successful completion of the training.

Contact Person: Head, PGE&T, CARI, Izatnagar-243122 (UP) INDIA
Phone : 0581-2300204, 09837836313 (M); E-mail: drbiswas007@gmail.com / cari_director@rediffmail.com; FAX: 0581-2301321

Year	No of Training	Trainees
2020	11	487
2021	19	1405
2022	16	1221
2023	14	1127

About us - ABI

The Central Avian Research Institute (CARI), a premier Research Institute in Asian continent, ever since its inception in 1979, has played a vital role in transforming country's backyard poultry farming into a vibrant and highly commercialized poultry industry by providing technological support and professional manpower. The institute offers superior genetic stocks of quails, turkeys, Guinea fowls, indigenous fowls, ducks, broilers and layers along with package of nutritional, management and healthcare practices; and processing technologies for eggs and poultry meat to acceleration the above services institute has established Agribusiness Incubation Centre (ABI) in January 1, 2016.

The Central Avian Research Institute has established Agribusiness Incubation Centre (ABI) and Institute Technology Management Unit (ITMU) to serve farmers, stockholders and anyone interested in poultry and allied ventures. It strives to be a strong link between the research community and the poultry farmers as well as entrepreneurs engaging the similar activities. It promotes Agribusiness Ventures through technology development and commercialization, processing for everyone from a corporate to an individual farmer.

Objectives:

- To nurture innovations through creation and development of agri-businesses to benefit the poultry farming community in the region.
- To facilitate commercialization of poultry production technologies by promoting and supporting poultry and allied business ventures.
- To promote successful poultry business ventures in order to benefit the entrepreneurs through new markets, products and services.
-

Mission

- Promotion of poultry & allied businesses through commercialization of technologies.
- Skill development of entrepreneurs through hands-on training.
- Preparation of DPRs for entrepreneurs for seeking loans.
- Consultancy services on poultry farming and allied activities.



ICAR-Central Avian Research Institute

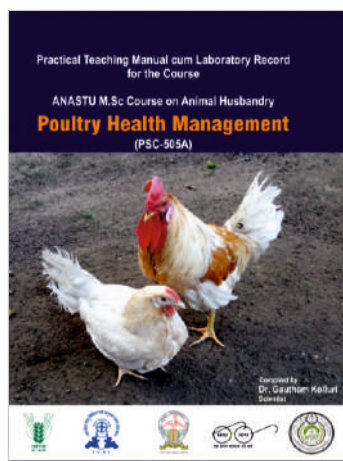
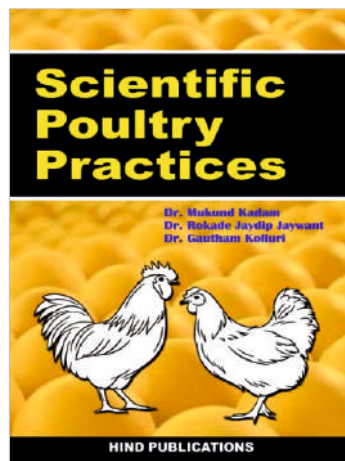
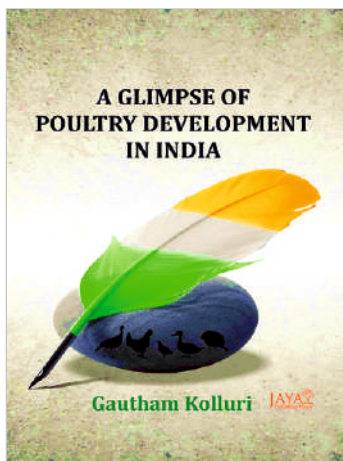
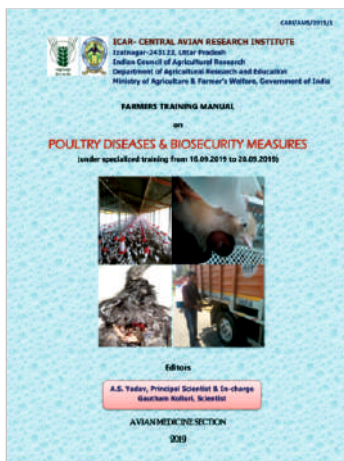
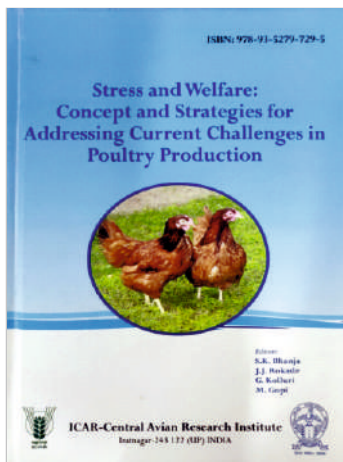
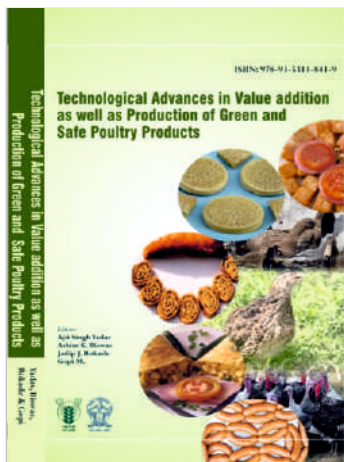
Izatnagar - 243 122 (U.P)

Agri-business Incubation Centre



Developing startup ecosystem for steering poultry entrepreneurship







Mobile Apps Developed

ICAR-CARI APP

URL: <https://play.google.com/store/apps/details?id=com.cari.egg>

Category: Education

Keyword: CARI, Poultry, Germplasm, Technologies, Knowledge corner

App OS Type: Android, Main Language: English

Organization Type: ICAR

SMD: Animal Science

Institute: ICAR-Central Avian Research Institute

Description:

ICAR-CARI provides the entire information related to this institute and also provides technical knowledge to poultry farmers, entrepreneurs, students and researchers. Queries related to poultry farming can get solved by using ask a scientist feature. Established under the aegis of Indian Council of Agricultural Research in 1979, the Central Avian Research Institute strives for the development of Indian poultry production through basic and applied, research, training, teaching, consultancy services, development of farmer friendly poultry technologies. The poultry technologies, supply of poultry, training details can be found on this app under offline and online modes. Payments required to make for CARI can be done through this app.



ICAR-CARI

Skilltroniks Technologies Pvt. Ltd Education

★★★★★ 9.2

Add to Wishlist

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Services

- The pure line, parent and commercial stocks of diversified poultry species
- Low input improve desi (indigenous) chicken varieties suitable for small scale/backyard poultry production
- Analysis of feed ingredients and compounded feed for proximate principles and quality control
- Processing technique for poultry meat and egg based value added and functional products with extended shelf life
- Preparation of bankable projects for raising institutional farms under various government schemes for establishing poultry and feed production units
- Business support for budding poultry entrepreneurs through high-business incubation (ABI) activities
- Windows based MAKEFED POULTRY and MAKEFED DAIRY software for formulating least cost and balanced ration
- Advanced training on duck, Japanese quail, turkey, Game fowls, broilers and layers production management covering all aspects of their breeding, production, nutrition, housing & shelter, processing & health care etc.,

Training

Training schedule

Name of the Training	Duration	Date	Fees (IN Rupees)
Broiler Production	12 days	To be announced soon	5,000
Layer Production	12 days	To be announced soon	5,000
Native/Desi Production	12 days	To be announced soon	5,000
Guinea fowl Production	12 days	To be announced soon	5,000
Turkey Production	12 days	To be announced soon	5,000
Quail Production	12 days	To be announced soon	5,000
Duck Production	12 days	To be announced soon	5,000
Poultry Diseases and Biosecurity	12 days	To be announced soon	5,000
Poultry Feeding and Quality Control	12	APPLICATION	

Technologies

POTENTIAL TECHNOLOGIES

Feed Formulation Software

MAKEFED is a Windows based unique software developed for efficient balanced formulation of feed for a wide variety of poultry species like layer and broiler chickens, quails, guinea fowls etc., for achieving maximum production performance. Provide diverse selection for feed ingredients to provide cost effective economical poultry diet

CARI Semen Diluent

Store the poultry semen without loss up to 9°C for 24-48 hours and can be transported anywhere in the country. Can be used up to 10% fertility in 1:9 dilution ratio. Very economical (Rs. 1/sample)

Polythene Duck Pond

Any place, anytime, ducks can be reared all the time. Bear ducks without natural river, canal, pond or lake.

Directors to use: Makes two layer thick and instant polythene sheet with 1.325 ft depth, 640 ft and fit about 800 ft water. Around 10-12 ducks can be reared in this pond.



CARI Birds

Performance profile of C birds

Commercial varieties

CARBIRD Chumra

- Multi coloured broiler
- Marketing age: 6 weeks
- Marketing weight: 1100 g
- Incubation: 28h
- Requires 1 kg live weight for every 1.7 consumed



CARBIRD Visual

- White broiler
- Marketing age: 6 weeks

BACKYARD POULTRY FARMING APP

URL: <https://play.google.com/store/apps/details?id=com.icar.ivri.iasri.backyard>

Category: Education

Keyword: CARI, Poultry, Germplasm, Technologies, Knowledge corner

App OS Type: Android, Main Language: English

Organization Type: ICAR

SMD: Animal Science

Institute: ICAR-Central Avian Research Institute

Description:

The CARI-Backyard Poultry Farming App is designed and developed by ICAR- Central Avian Research Institute, Izatnagar in collaboration with ICAR- Indian Veterinary Research Institute, Izatnagar & Indian Agricultural Statistics Research Institute, New Delhi. The app is specifically targeted to impart knowledge and skills to the entrepreneurs / farmers , rural youth and farm women about the backyard poultry farming as a livelihood option. The app contains information about the Importance of...



Backyard Poultry Farming App

ICAR-IASRI Education

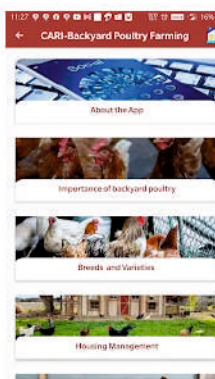
★★★★★ 9

3+

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JQuailXpert

URL: https://play.google.com/store/apps/details?id=com.cariapp.cari_app

Category: Education

Keyword: CARi, Poultry, Germplasm, Technologies, Knowledge corner

App OS Type: Android, Main Language: English

Organization Type: ICAR

SMD: Animal Science

Institute: ICAR-Central Avian Research Institute

Description:

JQuailXpert provides complete technological details on package of rearing, feeding, housing and health care management to support commercial farming of domesticated Japanese quails (*Coturnix coturnix japonica*)....



JQuailXpert

icar-cari Education

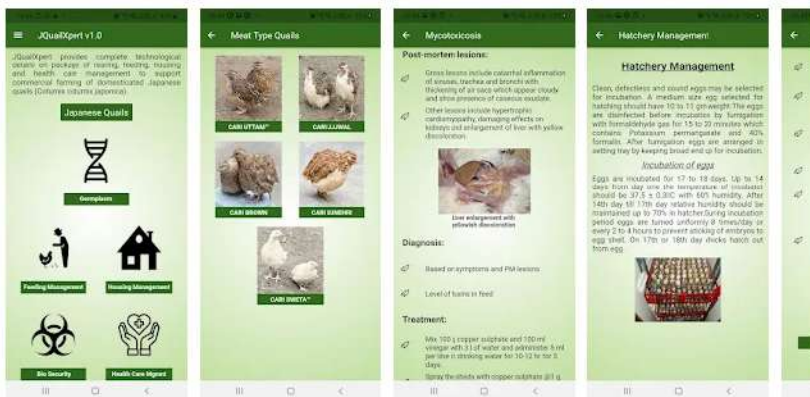
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✓ Added to Wishlist

★★★★★ 5

Install



JQuailXpert provides complete technological details on package of rearing, feeding, housing and health care management to support commercial farming of domesticated Japanese quails (*Coturnix coturnix japonica*).

CARI Entrepreneurs Who Are Propagating Our Technologies

Name of Technology	No.
KADAKNATH	23
ASEEL PEELA	21
RIR	20
CARIRED	15
COLOURED BROILER PARENT LINES FERTILIZE EGGS	12
CARIUTTAM	10
KADAMBARI GUINEA FOWL	9
CARI QUAIL EGG PICKLE	7
ANKALESHWAR	6
NICOBARI	6
ASEEL KAGAR	5
CARISHWETA	5
CARIVISHAL	4
CARIDEBENDRA	4
NAKED NECK	4
CARIBROWN	4
CHITAMBARI	4
CARI SALTED CHICKEN EGGS	3
CARIBRO	3
CARI MEAT BITES	3
COLOURED FRIZZEL	2
CARI EGG RASMALAI	2
CARI CHICKEN MEAT WEFALS	2

Name of Technology	No.
CARIUJJAWAL	2
CARISUNHERY	2
CARI EGG RABRI MALAI	2
CARI GRAIN EGG BISCUIT	2
CARI EGG KULFI	2
SHETAMBARI	2
GUINEA FOWL	1
ASEEL	1
CARISWETA	1
SILKI	1
MODAL PROJECT AND DEMONSTRATION UNIT FOR BACKYARD POULTRY, LIVESTOCK, VERMI-COMPOSTING AND MORINGA INTEGRATION UNDER RKVY	1
DALHEM	1
CARI LOW SUGAR BISCUIT	1
CARI POULTRY SEMEN DILUENT	1
WHITE LEGHORN	1
CARIDEBENDRA	1
CARI CHICKEN PATTICE	1
CARI BUTTERED FRIED QUAIL	1
CARI CHICKEN SEEK KABAB	1
CARI PORTABLE POULTRY INCUBATER	1
CARI CHICKEN BUDDY	1

* Number of breeders/entrepreneurs purchased and propagating our technologies

cari



CARI TECHNOLOGIES & SERVICES



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