ROLE OF IMPROVED SLOW GROWING BREEDS IN ENABLING ANTIBIOTIC FREE POULTRY FARMING.

DR. KOTAIAH. T

Indbro Research & Breeding Farms Pvt.Ltd.
Hyderabad INDIA

www.indbro.com

drkotaiah@indbropoultry.com

9848090087

RESEARCH & BREEDING FARMS PRIVATE LIMITED

Eternally Innovative Leaders

DR. KOTAIAH, 77 years was born in a rural agriculture Family in A.P. Graduated as a veterinarian in 1970, and specialized in poultry breeding in 1972. After working for 13 years in the industry, started his own Commercial Broiler farming, Self employed in his own R&D company in the year 2000 with Broiler Breeding, shifted to breeding "Low Technology Input Birds" since 2005.

POULTRY – THE BEST FOOD ANIMAL.

GENERATION INTERVAL is LOW- One year per cycle.

FAST Genetic progress is possible.

EFFCIENT CONVERTER OF Vegetable Protein to more balanced Animal Protein.

REQUIRES Less SPACE, Less WATER, Less TIME

LESS Perishable & Less risky – Compared to Milk. flowers & Vegetables.

POULTRY –Accepted by all religions.

CHICKEN is OVER TAKING BEEF & PORK WORLD WIDE.

POULTRY IS AN AGRICULTURE ACTIVITY – Animal Husbandry. No permissions required to build poultry & run poultry business. No taxes on poultry sheds. Banks lend in par with Agriculture.

STATISTICS

INDIA – 4TH largest Broiler producer after CHINA, BRAZIL & USA.

CHICKEN is Lowest price in India.

10.0 MMT -6.0kg /year/head. Target 11kg. Brazil 49kg chicken alone.

Chicken used to be costlier than Mutton prior 2000. Today chicken is available at less than half of the mutton price.

Feed prices have gone up by 3 fold during last decade. But the broiler prices are rising very slow.

Possible due to Genetic improvement in Broilers assisted by research in Nutrition, Management and disease prevention.

BROILERS

GROWTH RATE – 67gms per day. 1kg in 21 days and 2kg in 35 days. 0.75 days reduction every year. 2Kg broiler in 30 days not far away.

FEED CONVERSION-

FCR coming down to 1.5 monthly averages. Target 1:1

MORTALITY – Disease are controlled by vaccinations. Higher feed consumption leading to metabolic problems. “All in All out” housing & Good Biosecurity is a must.

Genomic Research is employed to solve some mortality problems.

Integrated Broiler production by large corporate companies in Parent farming + Hatching + Feed mixing and “All in all All out” broiler rearing + Chicken processing units and further processing all under has kept the consumer prices very competitive.

BROILER PRODUCTION

Few years ago Chick producing hatcheries, feed plants and bird traders were different profit centers.

SHORTENING PRODUCTION CYCLE-Changed ways of production. Integrated production. Own feed, Own chicks & own marketing.

Contract farming model engaging the farmers.

Chick sales and bird sales by farmers almost gone.

Treat Broiler production not as a farming but as a **food production**.

.High levels of biosecurity and controlled houses.

Hatch brood systems in cold climates can reduce the rearing cycle to 25 days.

EC houses for captive marketing.

Live bird marketing to Dressed chicken- live markets may be banned – Bird Flu threat.

AUTOMATED BROILER HOUSE 25000+

FUTURE BROILER PRODUCTION

The broiler production will keep growing 8-10% every year.

More integration – spreading to new areas.

Cost of production is under control with genetic improvement and cost management under integration

LOWER PRICED PROTEIN FOOD FOR THE MIDDLE CLASS AND LOWER MIDDLE CLASS CONSUMERS ALSO.

CHICKEN CONSUMPTION WILL RISE FAST TO REACH 11KG/HEAD.

Quality production through disease free chicks, quality feed and better health care & management systems.

Will not be a farmers game any more.

Farmer is a part of the company/system.

CHANGES IN BROILER PRODUCTION

IMPORTANCE OF BREAST MEAT – Has gone up. 27 to 30%

Bird size – more than 3kg in 42days. Breast portion 1kg. Problems are more

White muscle stripes – Death of the muscle tissue due to lack of blood supply

Woody Breasts – Hard breast meat.

Welfare issues –

Fast Growing birds vulnerable for low grade infections and the environment. Affected birds need treatment. Antibiotics for treatment on the face of a challenge cannot be avoided.

Taste –Water holding capacity of hard broiler meat is low. The taste of Broiler meat is bland.

Health parameters – Fatty acid composition. The ratio between Saturated, Unsaturated and Poly unsaturated fatty acids is wide. A Ratio of 1:1:1 is recommended as a healthy combination.

USE OF ANTIBIOTICS IN POULTRY PRODUCTION

1970s – Improved commercial breeds entered Indian Market. Poultry farming became very profitable.

Spurt in expansion. A farmer builds a chicken house in his farm land, buys chicks, gives same water and the feed was just grounded Grains and contained Animal protein, Fish Meal and Meat meal.

Vaccination programs were minimal and the secondary infections were abundant. Many western companies introduced ANTIBIOTIC GROWTH PROMOTERS. They are added in feed in sub therapeutic levels. The medicine worked as a Bacteriostat and kept the bacterial multiplication low. The productivity was better.

More Antibiotics came in and the farmer was given better antibiotics like Tetracyclines, Nitrofurans, Sulphanamides, Quinols etc. The veterinarians judged the situation and prescribed different drugs.

The Awareness of microbes becoming resistant to the antibiotic and transmission of drug resistance to the consumer came much later. Became matter of serious concern and discussion after 2015.

SOURCE OF BACTERIA

Antibiotics work on Bacteria. Poultry farming became more organized. Producers started looking where the Bactria come from?

1. Parent Birds and Hatchery- Chicks born from sick parents under unhealthy conditions can carry navel infections and start dying from day one needing treatment.

2. Neighboring sick birds – If we house chick in the farm where there are birds suffering, the new chicks get the infection from the neighboring birds. The contamination is faster with the same workers moving between the flocks.

2. Feed – Animal feed ingredients like Fish meal and Meat meal can be a source. Contamination of material while moving.

3. Water – Human handling of water in open containers while transferring and washing contaminates the water.

Viral diseases make the bird vulnerable for bacterial attach due to lowered immunity levels.

PREVENTION NOT CURE

The poultry producers realized that

1.Prevention saves money on medication.

2. Reduces total depletion of birds.

3. Increases the productivity of the flock and

4. We do not wish to pass on the material harmful to the consumer.

PREVENTION IS BETTER THAN CURE

ALL IN ALL OUT SYSTEMS – One flock at one time on one farm- No chance of getting diseases from the neighboring sick birds.

Gap between the flocks kills all the bacterial in the premises. Bacteria cannot live out side the body for long time. At least 15 days gap between the last bird and the first bird of next batch.

All vegetarian feed.- Fish meal and Meat gone out. Steaming of feed and converting the mash in to Pellets and crumbles killed the contamination. Transporting in new bags or bulk containers avoid recontamination of the finished product.

Clean Hatcheries of Maternity unit status prevent infections. Clean parent breeders tested for diseases and vaccinated with killed vaccines to transmit the maternal immunity to the chicks has given the best security.

Nipple drinking systems does not require human interference.

ALTERNATIVE BREEDS & RURAL POULTRY

The Large producers work on the efficiency and count on every egg and every gram of feed and chicken. Rural poultry can create employment and produce additional income with less effort.

1. Government wants to “Double the farmers income”

2. National Livestock Mission – Funding Schemes by Central Government under subsidies.

3. CSR spending by many Large companies like Tatas, HCL, World Vision are promoting the Rural Poultry.

4. House wives, Senior citizens and Unemployed youth are ready to take it up with low cost housing and less investment and short time per batch.

RURAL POULTRY

Today electricity, water quality and road connectivity has improved a lot in the rural areas. Farmer is producing grains, milk, meat, fruits, flowers & vegetables. He can also produce chicken and eggs which provides nutritious food to family and additional income to house wife.

NATIVE POULTRY BREEDS

MANY BREEDS AND STRAINS ARE AVAILABLE . ALL GOT MIXED UP. SOME WITH WLH IN UPGRADATION SCHEMES.

NATIVE BIRDS ARE STILL BROODY. LAY FOR 20DAYS, HATCH EGGS FOR 21 DAYS & MOTHERING CHICKS FOR 30DAYS. ONE CYCLE TAKES 3 MONTHS AND 4 CYCLES IN AN YEAR.

LAYS 15 EGGS PER CYCLE AND NOT MORE THAN 60 EGGS/YEAR

VERY INEFFICIENT MEAT PRODUCERS.

TAKES MORE THAN 130DAYS TO GET 1KG WEIGHT.

ADULT BODY WEIGHT NOT MORE THAN 1.3KG. FEMALES AND 2.0KG MALES.

ADVANTAGES OF NATIVE BREEDS

ABILITY TO FLY & RUN – SAVE THEMSELVES FROM PREDATORS.

COLOURED - HELPS TO CAMOFLAGE FROM PREDATORS.

RELATIVELY RESISTENT TO ADVERSE CLIMATE AND MAY BE TO DISEASES DUE TO NATURAL SELECTION.

NO TECHNOLOGY. NO INVESTMENT. NO EFFORT IN PRODUCTION. WHAT EVER REALISED IS CONSIDERED A RETURN.

INPUT ISSUES IN RURAL POULTRY -PAST

1.SEED – CHICKS – DESI BIRDS POOR IN GROWTH & EGG PRODUCTION and overall reproduction.

2. HOME GENERATION – QUALITY AND QUANTITY OF CHICKS.

2. AVAILABILITY OF BALANCED FEED- SMALL QUANTITIES.

3. HEALTH CARE. VACCINATION- TECHNICALITIES.

4. UNIT SIZE AND PRODUCTION COST.

5. MARKETING. MIDDLE MEN & TRANSPORT COSTS

6. Cluster farming for chicken production involves nearly 10farmers in a village at different plots of land one taking care of vaccination, one marketing. With cluster, the availability is consistent and branding is possible.

LOW INPUT TECHNOLOGY BIRDS

COMBINE EFFICIENCY & ADVANTAGES OF NATIVE BREEDS WITH

SOME EFFORT,

LOW INVESTMENT,

LOW TECHNOLOGY INPUT &

BETTER DISEASE SECURITY

BUT WITH DEFINITE & PREDICTABLE RETURNS?.

THE BIRDS SHOULD THRIVE ON.

LOW COST HOUSING

LEAST COST RATIONS OR LOCALLY AVAILABLE FEED MATERIALS.

COLOURFUL TO CAMOFLAGE.

AGILITY TO RUN FAST & ESCAPE FROM PREDATORS

I.C.A.R, C.P.D.Os, UNIVERSITIES. PRIVATE COMPANIES FOLLOWED.

COMPARISION	NATIVE	LOW INPUT
AVAILABILITY	POOR	GOOD
GENETIC STATUS	VARIABLE	STANDARD
MASS REARING	NOT DONE	POSSIBLE
LIVE BIRD MARKETING	GOOD	GOOD
ORGANIC FOOD PRODUCTION	POSSIBLE	POSSIBLE
TASTE	GOOD	GOOD
MEAT	TOUGH	MEDIUM
RISK OF LOSSES	HIGH	LOW
CHICK MORTALITY	HIGH	LOW
PARENT LAYING (EGGS)	60	220
COMERCIAL LAYING (EGGS)	60	160 -180

COMPARISION	NATIVE	LOW INPUT	
WEIGHT 4WEEKS GMS	<200GMS	350+	
WEIGHT 6WEEKS (GMS)	450	1125	
WEIGHT 8WEEKS	550	1600	
MARKET WEIGHT (GMS)	1200	1200	
NO OF DAYS TO GET 1200	100	44	
FEED CONVERSION	>4	2.00	
FEED QUANTITY (KGS)	4.5	2.68	

LOW TECHNOLOGY INPUT BIRDS

Breed crosses between layers & Broilers

Dual Purpose. Grows faster than layers. Lays more eggs than broiler birds.

Males for meat production- 1.5 to 2.0Kg in 2 months. 160-180 eggs in an year.

Multicolored – can camouflage, run faster than broilers.

Can thrive on Lower quality inputs.

Quality chicks can be produced with definite production parameters.

NATIONAL LIVELI HOOD MISSIONS has adapted LIT birds.

TWO TIER SET UP

1. MOTHER UNITS

CRITICAL PART OF BROODING & VACCINATION TO BE DONE CAREFULLY IN BIGGER SCALE – MOTHER UNITS.

CONFINED BROODING AND REARING AT LEAST UP TO 4 WEEKS – BIRDS FULLY FEATHERED. VACCINES DONE.

GOOD BROODER HOUSES & EQUIPMENT.

REASONABLE COMPOUNDED FEED FOR 4WEEKS.

VACCINATION AGAINST PERMISSIBLE & KNOWN DISEASES.

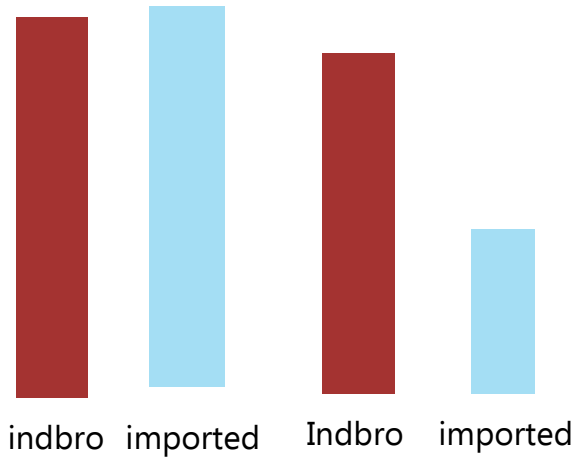
FULL TIME INVOLVEMENT OF AT LEAST FEW, INVOLVING INVESTMENT.

BIHAR(JEEVIKA), U.P, WEST BENGAL, ODISHA, A.P, TELANGANA, ODISHA

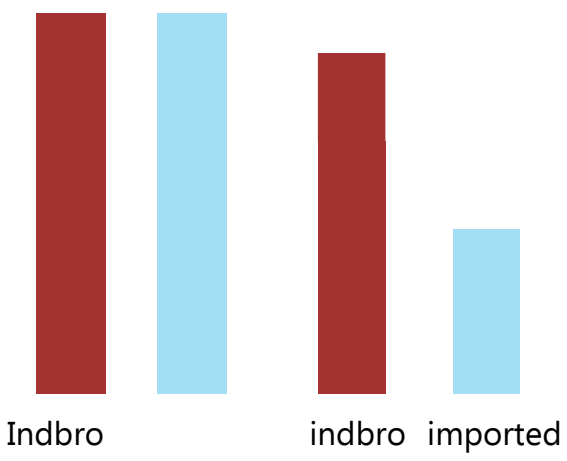
4WEEKS BIRDS

ADAPTABILITY

Breeding policy was to develop birds that are adapted to Indian climates. Hot climates inferior quality feed and open sided housing with below average water quality. The results indicate that adapted stocks excell in performance under sub optimal conditions over the Birds breed under Ideal situation.



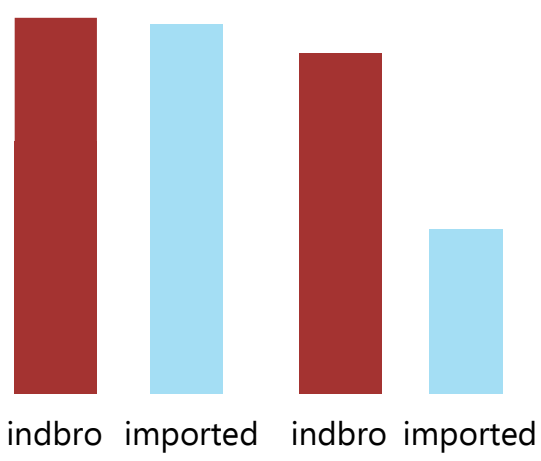
Good Feed **Average. Feed**



Moderate Temperature **Hot Temperature**

Env. Controlled Houses

Open Sided Houses



Treated Water **Sub Normal Water**

INDBRO RAINBOW ROOSTER – DUAL PURPOSE

INDBRO RAINBOW ROOSTER

PERFORMANCE OF "RAINBOW ROOSTER"

COMMERCIAL BROILER FEED

Age wks	Weight			Feed Bird			Fcr	Mortality %
	Males	Females	Average	Per Day	Week	Cumulative		
1	110	105	107	15	105	105	0.98	0.75
2	250	220	235	25	175	280	1.19	1
3	450	400	425	50	350	630	1.48	1.25
4	700	600	650	75	525	1155	1.78	1.3
5	1000	850	925	100	700	1855	2.01	1.35
6	1450	1150	1300	125	875	2730	2.1	1.5
7	1800	1550	1675	150	1050	3780	2.26	1.7
8	2200	1900	2050	160	1120	4900	2.28	1.9

LAYAR CHICK FEED

1	100	95	98	13	91	91	0.93	0.75
2	180	160	170	18	126	217	1.28	1
3	350	300	325	30	210	427	1.31	1.25
4	500	425	463	50	350	777	1.68	1.3
5	700	600	650	70	490	1267	1.95	1.35
6	100	800	900	90	630	1897	2.11	1.5
7	1300	1000	1150	110	770	2667	2.32	1.7
8	1600	1200	1400	130	910	3577	2.56	1.9

SCAVEGING

Age Wks	Males Wts	Females Wts	Average
1	100	95	98
2	180	160	170
3	350	300	325
4	500	425	463
5	650	480	565
6	850	600	725
7	1100	750	925
8	1300	900	1100
9	1500	1100	1300

EGG LAYING - FEMALES

Age at Maturity – <160 Days

Eggs per Birds in 72 weeks – 160 to 180 Eggs

Weight of hens end of lay – 3000gms

Egg Weight – 60gms.

INDBRO RESEARCH & BREEDING FARMS PVT.LTD.
H.No. 2-4-118/117, South Swaroop Nagar, Uppal, HYDERABAD-500 039.
Mobile Nos. : +919848090087, 9848880136, 9848884747
Website : www.indbro.com, E-mail : indbrobroiler@indbropoultry.com

Eternally Innovative Leaders

Exports:

Indbro Rainbow Rooster Chicks are popular in African countries like Kenya, Uganda and Senegal.

SLOW GROWING BROILERS – WELFARE CHICKEN

Consumers in Europe reacted first

Welfare demanding More space Free movement & No medication.

Produced without need for medication.

Slower growing welfare chicken Smaller in size.

The meat of these birds found to be Tastier.

Coloured birds growing slow are less vulnerable for problems.

Europeans breeders used dwarf gene to slow the growth (30%). It is still a broiler.

Netherlands and France are growing the birds for 70days.

Birds with slow growth are less efficient feed converters. Cost of production is high.

SLOW GROWING TASTY & HEALTHY COLORED BROILER INDBRO COLOURED BROILER

ICAR –NATIONAL RESEARCH CENTRE FOR MEAT (AN ISO2008 ORGANIZATION), CHENGICHERLA, HYDERABAD, TELANGANA TESTED THE CHICKEN AND FOUND

MEAT CHARACTERISTICS	INDBRO CHICKEN	BROILER CHICKEN
DRESSING %	69.63%	72.56%
BREAST MEAT	22.94%	29.15%
THIGH& DRUMSTICK	27.51%	25.18%
WINGS	18.44%	12.47%
WATER HOLDING CAPACITY	16.00%	14.25%
BOUND WATER	60.08%	58.14%
FREE WATER	14.50%	11.27%
MUSCLE FIBRE DIAMETER	57.50%	64.16%
SHEAR FORCE VALUE	9.07%	7.16%
MOISTEUR	74.34%	67.52%
PROTEIN	20.37%	19 %
FLAVOUR	7.13	6.64
TENDERNESS	7.19	6.77
JUICINESS	7.21	6.72
ACCEPTABILITY	6.975	6.832
COLOUR INTENSITY	DARKER	WHITE
FATTY ACID COMPOSITION		
Myristic acid (C14:0) - SFA	0.05	0.11
Palmitic acid (C16:0) - SFA	1.99	4.34
Palmitoleic acid (C16:1) – MUFA	0.26	0.93
Stearic acid (C18:0) - SFA	0.78	1.32
Oleic acid (C18:1 n9c) – MUFA	2.31	5.82
Gamma Linoleic acid (C18:3 n3) - PUFA	0.11	0.09
Eicosenoic acid (C20:1) – MUFA	0.07	0.00
Arachidonnic acid (C20:4 n6) - PUFA	0.05	0.00
SATURATED FATTY ACIDS	0.28	0.58
MONO UNSATURATED FATTY ACID	0.28	0.70
POLY UNSATURATED FATTY ACIDS	0.18	0.09
RATIO SFA :MUFA: PUFA	1.0:1.5:1.5	0.82:1.00:2.25
OPTIMUM RATIO - 1:1:1		
CHOLESTEROL THIGH MEAT	50.03	71.68
SENSORY EVALUATION		
Total subjects: 168		
Preference -Numbers	122	46
Preference %	72.62	27.38


indbro
— Chicken & Brown Eggs —
Tasty & Healthy
indbro
Chicken
www.indbrochicken.com
indbro
Chicken Haleem Balls
Home
Delivery
Available
88856 44124

MARKET RESPONSE

Our marketing efforts on chicken are slow.

80% orders are repeat orders.

Acceptability is good and new orders mostly by recommendaion of the existing customers.

Our prices are high. We are giving Door deliveries.

Operating through vendors. Our own 3shops and 3 more area wise.

India is mostly live birds. Introducing Live broilers as a separate entity.

INDBRO ASSEEL

HEALTHY TASTY NATI

INDBRO ASSEEL

- *UNIFORM GROWTH & STURDY BIRDS*
- *NO FAT- HEALTHY- MULTI COLORED*
- *PEA COMB*
- *THIN LEGS*
- *100 DAYS*
- *TASTY & TOUGHER MEAT*

INDBRO ASSEEL - PERFORMANCE

AGE DAYS	MALES	FEMALES	AVERAGE	FEED/D	FEED/WK	CUM FEED	FCR	MORTALITY
7	69	51	60	10	70	70	1.167	0.75
14	92	68	80	15	105	175	2.188	1
21	161	119	140	25	175	350	2.500	1.3
28	265	196	230	30	210	560	2.435	1.4
35	345	255	300	40	280	840	2.800	1.5
42	495	366	430	50	350	1190	2.767	1.6
49	745	495	620	60	420	1610	2.597	1.7
56	923	697	810	65	455	2065	2.549	1.8
63	1081	849	965	75	525	2590	2.684	1.9
70	1219	901	1060	85	595	3185	3.005	2
80	1357	1003	1180	95	665	3850	3.263	2.1
90	1495	1105	1300	105	735	4585	3.527	2.2
100	1668	1233	1450	110	770	5355	3.693	2.3

For Day Old Chicks, Contact:

INDBRO RESEARCH & BREEDING FARMS PVT.LTD

2-4-117/118, South Swaroop Nagar, UPPAL , HYDERABAD 500 039.

TELEPHONE – 040 2720 5499/ 9848090087/9748884747/9848880136

Email : drkotaiah@indbropoultry.com, indbrobroiler@indbropoultry.com.

indbro RESEARCH & BREEDING FARMS PRIVATE LIMITED

ORGANIC CHICKEN

NATIONAL PROGRAM ON ORGANIC PRODUCTION (NPOP) IS SET UP IN INDIA TO ENCOURAGE ORGANIC PRODUCTION.

CERTIFYING AGENCIES ARE ASSAIGNED.

GENUINE ORGANIC INPUTS ARE NOT AVAILABLE.

CHICKEN REARED IN SMALL GROUPS IN RURAL AREAS ARE CONSIDERED ORGANIC.

LOW COST HOUSE – with a RUN

LOW COST FEED- NO CHEMICALS OR ANTIBIOTICS.

NO ANTIBIOTICS- FOLLOW GUIDE LINES.

POSSIBLE ONLY WITH SLOW GROWING BIRDS.

TESTING LABORATORIES FOR ORGANIC STATUS ARE AVAILABLE BUT THE WHOLE RANGE OF TESTS ARE EXPENSIVE AND NOT PRACTICABLE FOR EACH LOAD OF MATERIAL.

LAYER FARMING

IMPORVED EFFICIENCY – LAYERS

250-325 EGGS. Comparable to the best figures any where in the world.

Going for 500 eggs per hen by extending the laying cycle from 72 to 100 weeks.

Least cost feed formulations.

Many ingredients & large inventory.

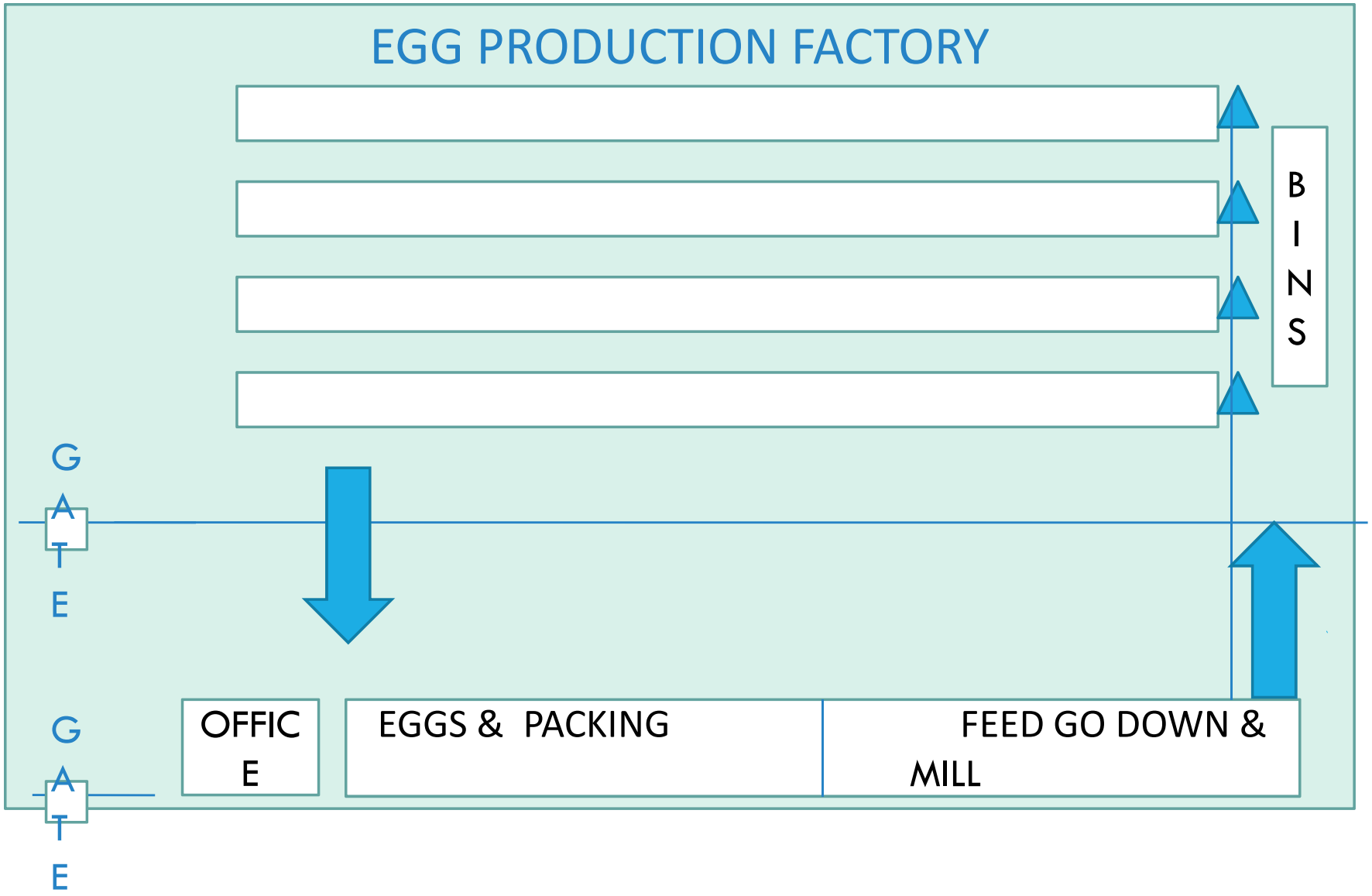
Efficient purchases and input management.

Exploit seasonal & regional production trends and prices of inputs.

Increase in farm size and flock size.

Down the line marketing and branding – yet to come.

LAYER HOUSE


EGG PRODUCTION FACTORY
BINS
GATE
GATE
OFFICE
EGGS & PACKING
FEED GO DOWN & MILL

FUTURE OF LAYER PRODUCTION

Cholesterol Scare is officially removed by Doctors.

The egg consumption is being promoted through midday meals and the consumption is on the rise.

There is a gap of 100 eggs per head requirement (180-82)

Who will produce these eggs. New areas like Bihar, UP, West Bengal and NE are coming up.

Welfare of Birds -The larger egg farms (factories) are facing problems in further expansion.

Environmental problems. Flies, smell, litter disposal etc.

THERE SEEM TO BE AN OPORTUNITY!

Right now the egg producers are in trouble with increasing feed prices and welfare issues.

ENTRY SPRAY

RURAL POULTRY

More than 70% are non-vegetarians. 98% in North East

Eggs & Chicken on festivals and functions at home.

Eggs and Chicken are costlier in Rural Areas.

Farmer is producing milk, Mutton, Fruits, Flowers, Grains, Vegetables.

Cant he produce eggs and chicken?

Electricity is available. Connectivity is improving.

Education level is going up in Rural areas.

Unemployed youth, House wives & Senior citizens are looking for activity.

Welfare standards need More area. Urban lands are expensive.

Government is willing to help in doubling the income.

CSR – Corporate Social Responsibility- companies like Tata, Reliance, HCL are looking to promote live stock to engage Rural youth.

Growth in this sector 49% during last 5 years

LARGE MOTHER UNIT

PROPER BROODING

COMMERCIALIZATION OF RURAL POULTRY

10 BIRD MODEL IS TOO SMALL FOR FULL TIME ENGAGEMENT.

MARKETING PROBLEMS IN LARGER UNITS. CONTINUOUS SUPPLY. ALL IN ALL OUT REARING. BIOSECURITY NORMS.

CLUSTER FORMING

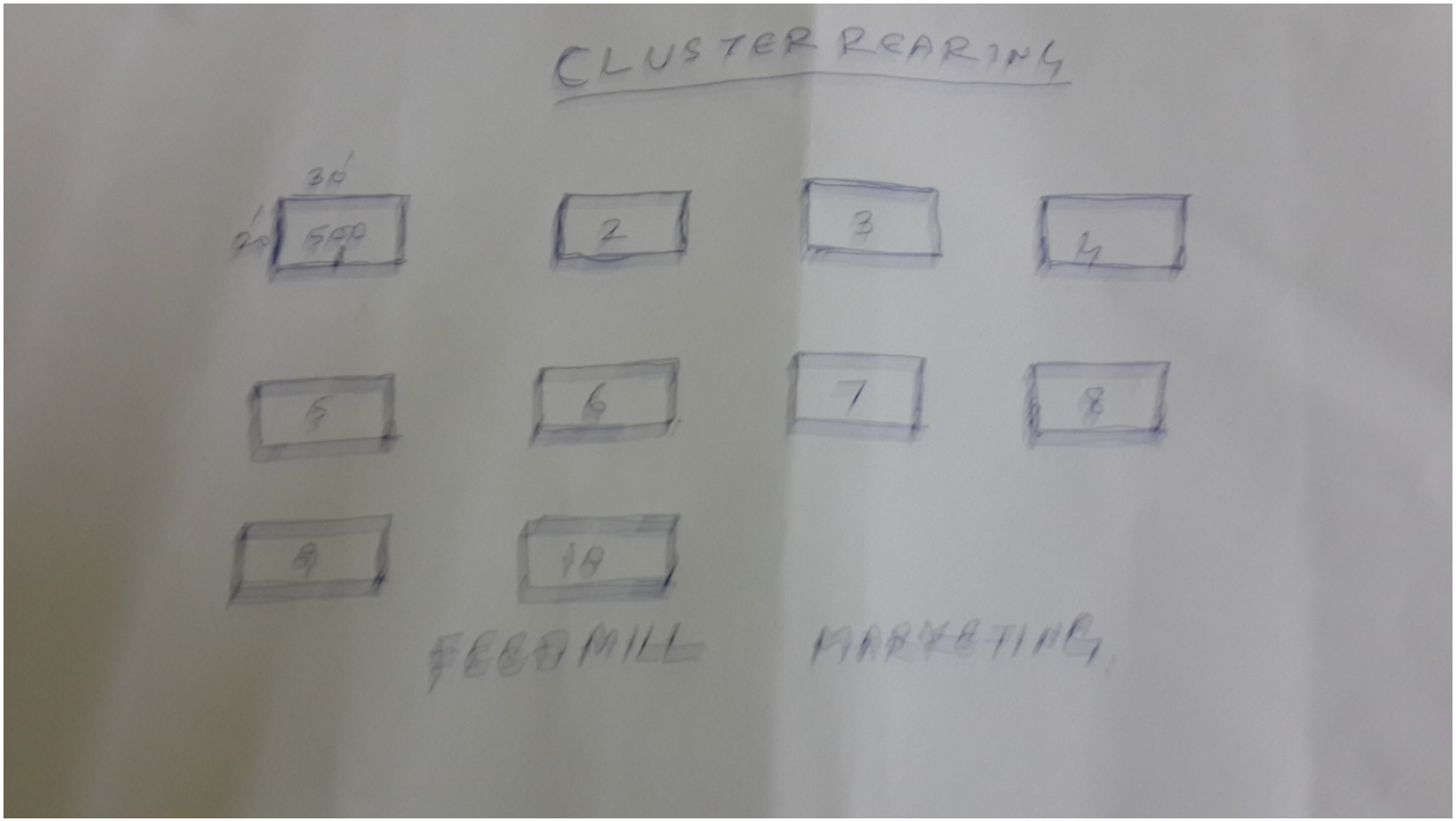
FOR MEAT PRODUCTION CAN INVOLVE 10 PEOPLE - ORGANIC CHICKEN PRODUCTION.

WE HAVE UPGRADED COLOURED BIRDS FFG VARIETY

RAINBOW ROOSTER PLUS OR INDBRO COLOURED BROILERS.

FARMING POPULAR IN ODISHS, WEST BENGAL AND U.P

CLUSTER FORMING



SMALL CHICKEN HOUSE

WHITE VS COLOURED

	WHITE	COLOURED
Chick cost	40	30
Pre starter	required	Not needed
First 4 weeks growth	Fast	Slow
Mortality 1st 2weeks	3%	1.5%
Days to 2.0Kg	38days	49days
FCR	1.65	1.90
Water holding capacity	poor	good
Taste	Bland	Tasty
Abdominal Fat	3%	1.5%
Price fluctuations	High	Low
Integrators Pressure	very high	NIL
Woody Breasts	common	NIL
Breast meat colour	Pale	reddish.
Selling price live	80-90	120-150
Dresses chicken /Kg	180	280+

ICAR –NATIONAL RESEARCH CENTRE FOR MEAT (AN ISO2008 ORGANIZATION), CHENGICHERLA, HYDERABAD, TELANGANA TESTED THE CHICKEN AND FOUND

MEAT CHARACTERISTICS	INDBRO CHICKEN	BROILER CHICKEN
DRESSING %	69.63%	72.56%
BREAST MEAT	22.94%	29.15%
THIGH& DRUMSTICK	27.51%	25.18%
WINGS	18.44%	12.47%
WATER HOLDING CAPACITY	16.00%	14.25%
BOUND WATER	60.08%	58.14%
FREE WATER	14.50%	11.27%
MUSCLE FIBRE DIAMETER	57.50%	64.16%
SHEAR FORCE VALUE	9.07%	7.16%
MOISTEUR	74.34%	67.52%
PROTEIN	20.37%	19 %
FLAVOUR	7.13	6.64
TENDERNESS	7.19	6.77
JUICINESS	7.21	6.72
ACCEPTABILITY	6.975	6.832
COLOUR INTENSITY	DARKER	WHITE
FATTY ACID COMPOSITION		
Myristic acid (C14:0) - SFA	0.05	0.11
Palmitic acid (C16:0) - SFA	1.99	4.34
Palmitoleic acid (C16:1) – MUFA	0.26	0.93
Stearic acid (C18:0) - SFA	0.78	1.32
Oleic acid (C18:1 n9c) – MUFA	2.31	5.82
Gamma Linoleic acid (C18:3 n3) - PUFA	0.11	0.09
Eicosenoic acid (C20:1) – MUFA	0.07	0.00
Arachidonnic acid (C20:4 n6) - PUFA	0.05	0.00
SATURATED FATTY ACIDS	0.28	0.58
MONO UNSATURATED FATTY ACID	0.28	0.70
POLY UNSATURATED FATTY ACIDS	0.18	0.09
RATIO SFA :MUFA: PUFA	1.0:1.5:1.5	0.82:1.00:2.25
OPTIMUM RATIO - 1:1:1		
CHOLESTEROL THIGH MEAT	50.03	71.68
SENSORY EVALUATION		
Total subjects: 168		
Preference -Numbers	122	46
Preference %	72.62	27.38

ORGANIC CHICKEN

FRANCE- 16-25% “LABLE CHICKEN”.

CHINA – 50% LOCAL YELLOW SKIN

LOW COST HOUSE – with a RUN

LOW COST FEED- NO CHEMICALS OR ANTIBIOTICS.

NO ANTIBIOTICS- FOLLOW GUIDE LINES

MARKETING WITH CERTIFICATE & BRAND NAME.

MARKET SAMPLES CAN BE CHECKED FOR VERIFICATION.

CHANGES IN LAYER INDUSTRY

Egg production started at consumtion centers like U.P, Bihar & North East. Movement of eggs from South getting slow.

Bird flu announcements hamper export of eggs.

Welfare activists are opposing cages. They want cage free eggs, free range eggs. They are approaching the governments, courts and consumers.

FSSAI enforcing on feed additives.

Gazette notification increasing the space per bird. Reduces the capacity by 25%

Registration of farm units to be undertaken.

Large units may not expand. Scope for more smaller units.

RURAL EGG PRODUCTION- WITH IMPROVED BREEDS

Growing period is 4 months (16 weeks).

Requires technical handling.

Many vaccines & debeaking

Difficult to organize in small units.

Two tier system with separate mother unit.

Family laying units

Substitute to Dairy farming.

Cluster farming to augment local production.

RURAL WOMEN


महिला आर्थिक विकास महामंडळ, यवतमाळ
अंतर्गत
तेजस्विनी लोकसंचालित साधन केंद्र, आर्णी
सुक्ष्म उपजिविका आराखडा (MLP)
गटाचे नांव : जय भोले, सरस्वती, मां दुर्गा, सखी महिला बचत गट, लोणबेहळ
गटाचा व्यवसाय/उपक्रम : कुक्कुटपालन
योजनेचे नाव : कृषी समृध्दी समन्वयीत प्रकल्प (CAIM Project)
अर्थसहाय्य : डेक फंड निधी अंतर्गत / अल्ट्रा पुअर

SMALL LAYER FARM

RURAL EGG PRODUCTION

MORE EGGS CAN BE PRODUCED IN THE BACK YARDS WITH IMPROVED BROWN BIRDS .

FAMILY LAYING UNITS - Less than 100

DAIRY FARMING MODEL - 100-300 BIRDS IN CAGES CAN BE ACCOMODATED IN A DAIRY CATTLE SHED.

READY TO LAY BIRDS CAN BE SUPPLIED BY MOTHER UNITS.

EGGS ARE PRODUCED EFFORT LESSLY FOR ONE YEAR.

CIUSTER MODEL EGG PRODUCTION

BROWN AND WHITE LAYERS

CHARACTER	BROWN	WHITE
Weight at 16 wks	1400 gms	1200gms
Wt at end of lay	2200gms	1600gms
Maturity age	19wks	18wks
Eggs in 365 days	300	310
Growing feed	6.0Kg	5.0Kg
Daily feed	120gms	113gms
Lower quality feed	Less drop	More drop
Average egg size	60gms	57gms
Average price of egg	Rs6.5	Rs5.50
Pullet (small) eggs	1or 2	20-30
Shell quality at end	Good	Poor
Albumen quality	+++	++
RETURN ON Culls per bird	Rs250	Rs70

Thank you

DR.T KOTAIAH
+919848090087
drkotaiah@indbropoultry.com

www.indbro.com | www.indbrochicken.com