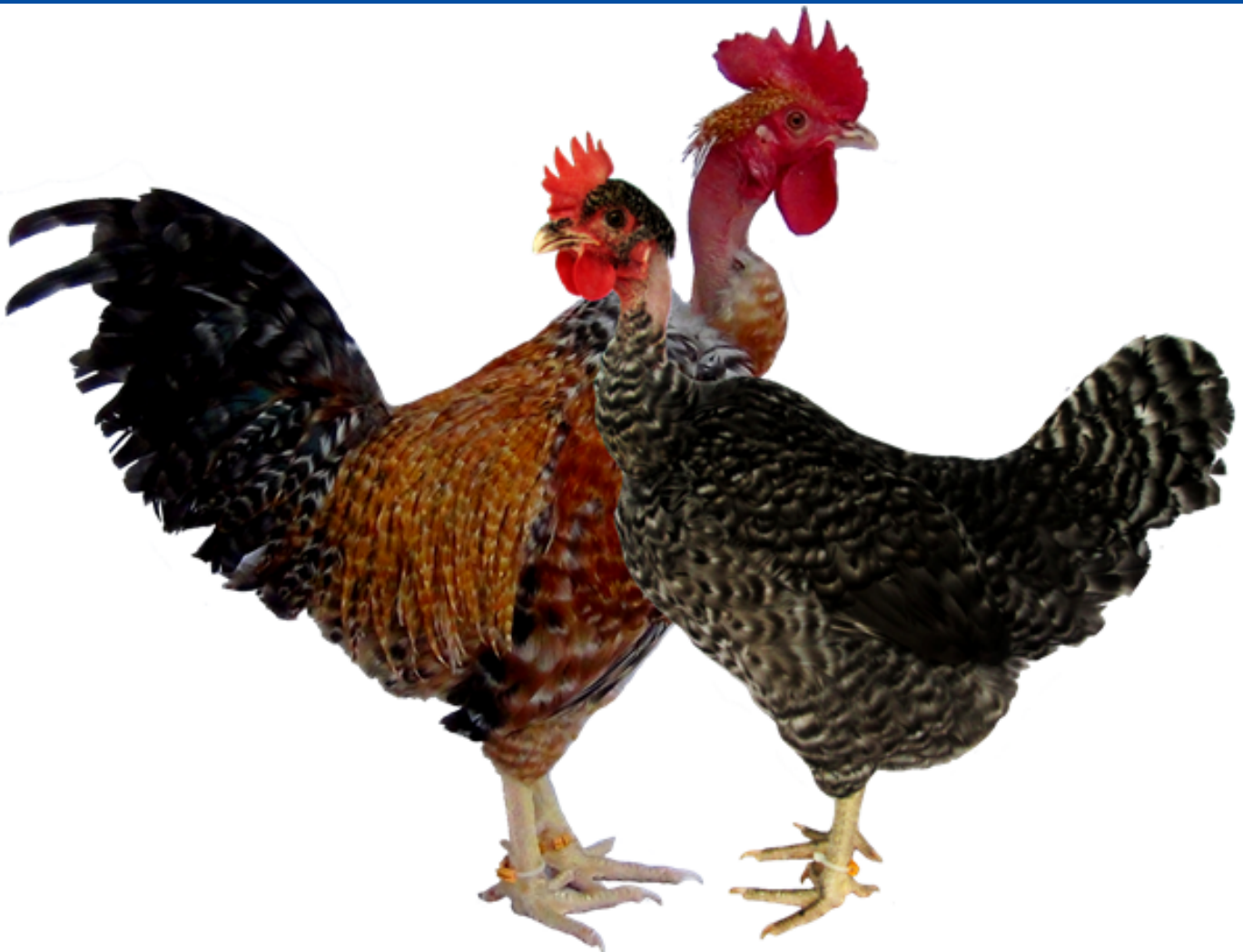
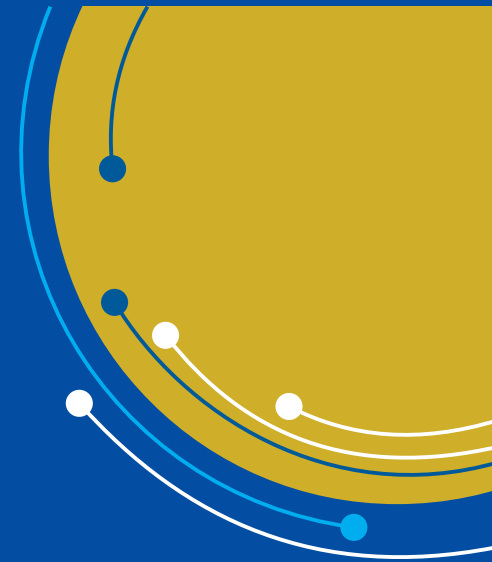



# UniGold-A New Egg Laying Backyard Poultry Breed



## Muhammad Sajjad Khan

Institute of Animal Sciences,  
University of Agriculture, Faisalabad



Poultry industry is the second largest industry of Pakistan after textile sector. It is providing a good and cheap source of high quality protein along with a source of employment and income for 1.5 million people in Pakistan. Poultry industry totally depends on import of parent stocks for both commercial layers and broilers. Total population of commercial layers in Pakistan is 42.6 million which are producing 11.3 billion eggs. The domestic or rural poultry consist of 40.18 million hens which are contributing 4.01 billion eggs annually. This shows that still rural poultry is contributing 36% of total eggs produced in the country in one year that indicates importance and preference of peoples for rural poultry and eggs. Rural women in developing countries are involved (and skilled) in poultry keeping. The link between poultry interventions and improvement of women's status along with the associated improvements in terms of nutrition and other benefits for the entire family seems to be direct. The scavenging poultry production system is a blessing for the poor households in rural areas. It provides food security, protein nutrition and women empowerment to the rural families and needs to be strengthened for livelihood improvement and poverty alleviation. Success stories regarding use of poultry production as poverty alleviation tools are common globally especially in Africa and India. More than sixteen breeds have been developed by India using local and exotic chicken genetic resources which are performing well under backyard rural production set up.

In Pakistan, poor production potential of local/rural breeds make them less profitable but still they have their cultural importance especially in case of Aseel breed which is mainly raised for cock fighting. Local chicken breeds are the only birds which are being raised and utilized by poor and landless farmers in villages. Desi hens are found in every village of Pakistan but facing threats from exotic breeds by being replaced progressively by crossbreds of Fayoumi and Rhode Island Red which are disseminated by Poultry Production Department. These birds are being produced by using two exotic parent breeds. Therefore, need was felt to develop our own local breed that can perform better under village conditions and could be propagated locally to save cost of import of exotic germplasm.

### Development of UniGold

Rural UniGold is a newly developed egg laying breed for backyard poultry production. Breed has been developed at University of Agriculture Faisalabad with the help of funds from Punjab Agriculture Research Board (PARB). Locally available indigenous and adapted breeds have been used to have barring as the main color. Two strains (full neck and naked neck) have been developed and tested for their performance under low to medium input systems in central and southern Punjab. Breed has capacity to produce as high as 210 colored eggs with average weight of 50gm as reported by Poultry Research Institute of Government of Punjab. Upscaling of the breed is expected through an Indigenous Chicken Research and Development Centre being anticipated to be erected at UAF in the near future.



**UniGold Naked Neck**-Partially naked-neck multicolored egg-laying line



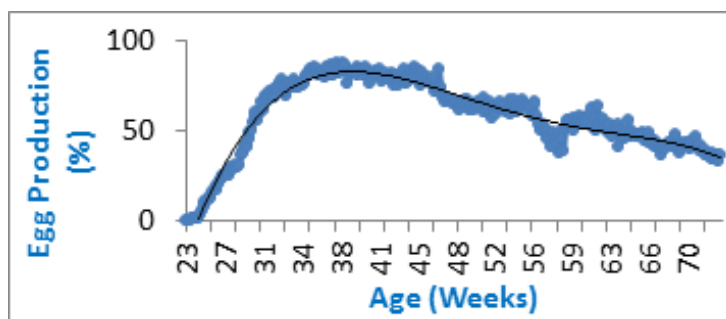
**UniGold Barred** – Feathered-neck barred egg-laying line

#### Performance of UniGold:

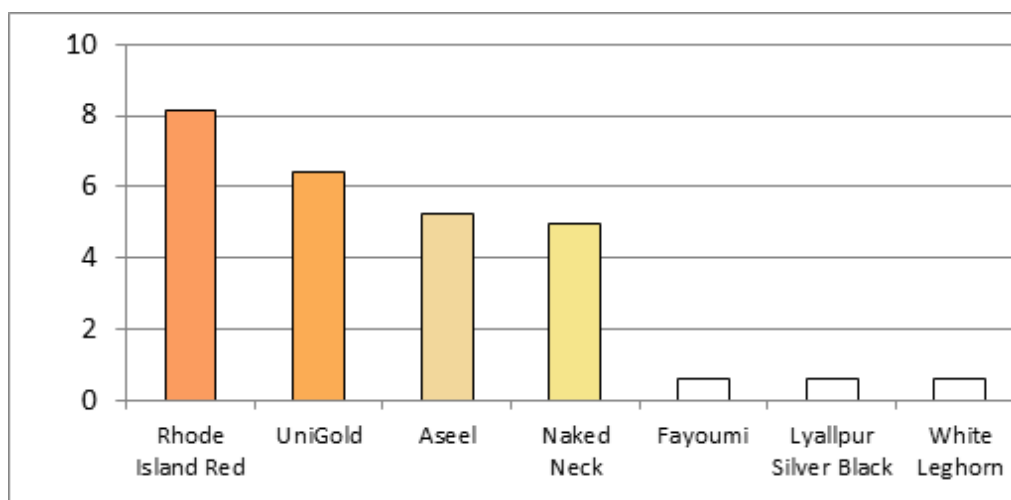
Performance Indicator	Barred	Non-Barred
Average Age at First Lay (weeks)	25	26
Body Weight at First Lay (g)	1288	1189
Hen-Day Production at 32 weeks (%)	71.4	83.2
Average Egg Weight (g)	52.3	52.0
Average Body Weight at 50 weeks (g)	1701	1650
Average annual eggs/hen (No's)	179	212

### Potential Impact on Rural Poultry Production

The newly developed breed (UniGold) can have a paradigm shift in village chicken production. It will help abandon the need to import Fayoumi, Rhode Island Red or any other strain for crossing and dissemination in villages. The improved egg production qualities and egg size has been combined with adaptability quality of local chicken breeds. The egg production per year is expected to be between 150-180 eggs per year (more than 100% increase) with an average egg size of about 50 gram (25% increase). This is a unique genetic resource harnessed with improved performance with better adaptability, which will be available to rural poultry farmers for backyard poultry production activities to provide nutrition and source of family income.



### Egg color (Protoporphyrin, nmol) variation in different breeds of Chicken



### Eggshell thickness (m) in UniGold and other chicken breeds

