AGRICULTURE Weekly issue

NAVUSO AGRICULTURE GRADUATE THRIVES AND GROWS FROM POULTRY FARM BUSINESS

His interest in Agriculture landed him four informative years at the Navuso Agriculture Technical School (NATI) in Navuso, Naitasiri.

A 2019 NATI graduate, Tadeo Bainivalu was given the opportunity to expand his horizon by becoming a commercial farmer with a land lease title package provided by the school.

"When we were asked of the type of farming we are going to engage in after we graduate, I chose poultry because my interest in this dated back when I was a child seeing my father raise meat birds," he said.

Within two years, Tadeo is another classic example of perseverance, hard-work and practically putting to good use what he learnt at NATI and the package he received on the five-acres leased land in Naila, Bau in Tailevu.

"When you are on your own farm that is where you practically do what you learn. It is different from when we were back in school where trial and error is acceptable," he said.

"This is for one's livelihood and going commercial takes dedication and time management, raising meat birds requires 6-7 weeks so I find that interesting."

Tadeo started his poultry farm with 300 chicks donated by the school when he graduated from the Navuso Agriculture Technical School.

"Quite a number of my colleagues chose beef, piggery, for me because of the interest from childhood and the geographical location of my farm, I saw that raising meat birds was the better choice," said Tadeo.

Tadeo shares his dreams and experiences with his family who supports and assist him on the farm.

"Rearing is the easy part including from the feeding to the hygiene maintenance of the shed but the challenging bit is when the birds become sick and record keeping is something we never miss."

Often Tadeo also has the hard task of discarding sick birds to prevent the spread of disease to other birds.

His poultry farming business is onto the third phase of its breeding with the first batch sale raking in $2,300 and the second batch brought him $1,860.

"Along the way we come across areas that need attention from raising chicks to its sale and we learn along the way."

In addition, the family recently started selling meat birds on Saturdays and have even booked a spot at the Nausori Market.

The impact of the education Tadeo received at NATI has opened his eyes and enabled him to re-invest on the land he has leased from the profit gained from the sale of his meat birds.

"Apart from buying more chicks and feed, money received from the sale of the birds was spent on the fencing the five acres land, paid for digger works for land preparation on the other flatland that will be used soon for crops and vegetables, we also managed to buy a cow, and we are also planning on buying a van for selling and transporting birds from my next sale."

From the land he leased to start his poultry farm, he has also expanded, planting 2,000 dalo toppings and 1,000 cassava plants.

With the struggles he encountered in life, Tadeo said it was essential that money was used wisely on necessary things that would provide a good return in the future.

"Attending NATI gave me a lot of opportunities from learning the basics of livestock and crop to being given a lease title to start my farming with stock to start with, to what I am achieving now," he said.

"All is needed is for me to continue with determination, confidence, discipline, being obedient and willing to sacrifice."

Tadeo Bainivalu at his poultry shed.

BASIC INFORMATION ON BROILER FARMING

BROILERS

Broilers are chicken raised for meat production. Poultry meat is an important source of high quality protein for human diet. Broiler farming can be taken up as backyard farming for food and income security purpose or can be taken up as a commercial venture.

Advantages of broiler farming are:-

- Rearing period is 6-7 weeks [Short cycle]
- Broiler has high feed conversion efficiency
- Broiler has faster return from the investment
- Demand of poultry meat is more as compared to other meat.

HOUSING

Site selection

- Farm to be well connected to roads.
- Should have the availability of electricity and water at all times.
- High land with loamy soil for good drainage.
- Enough space for further expansion.
- Open space for good ventilation and biosecurity.

VENTILATION

- Proper ventilation for movement of fresh air into the building for removal of stale air.
- Wire mesh to be fitted on the upper side of all the walls.
- Wet litter due to poor ventilation is the predisposing factor for coccidiosis and other health issues.

FLOOR SPACE

- May vary according to age, size, type and number of birds.
- 1-1.2sqft/bird is recommended for matured birds.
- Floor to be strong, durable, free from dampness, smooth and rat free.
- Floor to be 1ft high from soil level.
- Cement concrete floor is best.

BUILDING

- Should be in the East-West direction lengthwise.
- Distance between sheds to be at least 50 feet (open house).
- Width of the house not to exceed 30-35ft.
- Shed height should be from 10-12 ft.
- Roof is necessary to protect birds from rain and direct sunlight.

LITTER

- Broilers are generally raised on deep litter system.
- Floor to be disinfected by phenyl, bleaching powder or lime before placing litter material.
- Litter material such as rice hull, wood shavings dried leaves etc. can be used to cover the floor.
- The depth of the litter should be 3-4inches.
- Cover the litter with paper for the first few days to avoid chicks from eating litter.
- Litter is used for keeping birds clean and comfortable as it absorbs moisture from droppings.
- Litter should be free from mould, injurious materials and dust.
- Litter should be kept in good dry condition.
- Remove wet litter if any and replace with fresh litter material.

PREPARATION BEFORE CHICK ARRIVAL

- Building, surrounding areas and equipment must be thoroughly cleaned and disinfected.
- Cover the dry floor with litter.
- Prepare and setup brooder guard.
- Place feeder and waters in a circle around the brooder.
- Operate the brooder for at least 24 hours before the chicks arrive for optimum temperature and condition.
- Fill the feeders and waters a few hours before the chicks arrive.

AFTER CHICK ARRIVAL

- Introduce chicks to feed and water.
- Observe chicks closely and routinely.
- Keep feed and water available to the chicks at all times.
- Provide fresh, clean feed and water.
- Provide plenty of fresh air without draft.
- Keep litter dry.
- Adjust brooder light if needed.
- Once brooder or heat lamp is removed provide another source of light.

BROODING

- Broiler chicks need a source of heat to keep them comfortable.
- For the first week the chick environment needs to be in the range of 90-95°F.
- Reduce temperature gradually by 5°F each week until broilers are 3-4 weeks old or the temperature is 70°F.
- If the chicks are too warm, they can become dehydrated which may lead to death or growth delay.
- Use thermometer for pen temperature by observing chicks response to heat source-cold chicks huddle together under heat source.
- Hot chicks move to the outer limits of the brooder guard. (ref .fig 2)

BROODER

- A brooder provides the heat and protection the chicks would receive from the mother.
- A simple brooder is made from heavy box or basket with a layer of sawdust or newspaper placed at the bottom of it for brooding small number of chicks.
- A newly hatched chick will require an area of 20cmx20cm (8 inchx8inch) for each bird. A box of 1mx1m (3.2ftx3.2ft) will be enough for 25 chicks.
- For large farms, brooder can be constructed within the poultry shed using brooder guards and plastic curtains.
- Brooder guard should be 1.5 ft in height.
- Heater, bulb or hurricane lamp can be used to provide heat. Put the light bulbs about 18 inches above ground.
- Spread saw shavings or bedding material and cover with newsprint and spread feed on newsprint for first few days. Also provide fresh clean water. Feed troughs can be introduced later.
- The birds can be kept in the brooder until they are 2 weeks old and later released into the poultry coop or shed.

OTHER ESSENTIAL REQUIREMENTS

Once the birds are over 2 weeks old and released into the shed, it is important that the following is provided for optimum growth up to marketing.

LIGHTENING

- Light should be provided 24hrs a day.
- This will increase the feeding time, increase weight gain and improve feathering in broiler.
- First 15 days in brooder 40, 60,100 Watt bulbs are used according to the requirements.

FEEDERS AND WATERERS

- Keep feeders and waterers clean all the times.
- Feeders should be kept at height that is level with the birds back height.
- Feed consumption is directly related to water consumption.
- Adequate water is necessary to optimize growth.

TYPES OF DRINKERS

- One drinker can be used for 50 chicks.
- After four weeks, use one automatic drinker for 100-150 chicks.

TYPES OF FEEDER

- One linear feeder for 50 chicks.
- After four weeks, use one round feeder for 25 birds.

FEEDS AND FEEDING

Broiler Starter (21%CP) – 0 to 14 days (500g feed/chick)

Broiler Grower (19%CP) – 14 to 28 days (1200g feed/chick)

Broiler Finisher (18%CP) – 28 days to market (1200g/chick)

PESTS AND DISEASES

- Sheds should be well-secured and free from predator.
- There is no major disease, if proper management and farm hygiene is practiced.
- Buy and feed medicated feed.

RECORDS

Keep records of all transactions for farm inputs, mortality, flock, feed and water consumption, disease and treatment etc. These will assist in planning and better decision making.

MARKETING

Farmers can market their birds by selling live. All in and all out basis should be practiced in broiler farming provided there is sufficient demand however, selective harvesting can be done based on sales demand. Clean shed by disinfecting and leaving it to dry for at least one week before next batch of birds are placed.

Proper Brooding illustration