Resume concept PFUMVUDZA

Introduction

In many parts of Africa, it is common for rural farmers to cultivate up to 2 hectares of land annually. However, despite their efforts, they often struggle to produce enough food to sustain their families. Some believe the solution lies in expanding farmland or introducing mechanization. Unfortunately, increasing the land size often leads to declining soil quality and does not necessarily improve yields. On the other hand, mechanization is often financially unattainable for most households and comes with additional hidden costs.

Inspiration

Our God's creation, Mother Earth, gives us everything we need to live, we must follow the laws of nature and with faith in God we can produce enough food for our families.

PFUMVUDZA is a concept that originated in Zimbabwe and has been developed in many African countries as a concrete response to the fight against hunger. The Farming Foundation uses 4 principles to achieve efficient production. Foundations for Farming principles:

- **On Time**
- **To a High Standard**
- **Without Wastage**
- **With Joy**

This faith-based approach is a sustainable way to fight food insecurity and could help feed entire nations.

Concept

Pfumvudza aims to answer: “How much land is needed to feed a family?”

- A family needs 52 buckets of maize per year, one per week.
- Each bucket requires 56 cobs, with each cob weighing 300g.
- Since each plant should yield at least one cob, 56 plants per bucket are required.
- With a spacing of 60 cm between planting stations and two plants per station, a 16m-long row is sufficient for one bucket.
- To produce 52 buckets, 52 rows of maize are needed.
- At a row spacing of 75 cm, the total plot size required is 16m × 39m (1/16 of a hectare).
- This system works with maize, sorghum, millet, and legumes like soya, beans, groundnuts, or cowpeas (for crop rotation).

Materials needed

- 16kg micronized lime
- Compost or 16kg basal fertilizer
- 2kg maize seed, open-pollinated variety (OPV) seeds if available
- Compost and chicken manure te or if not available
  2 × 8kg ammonium nitrate top dressing
- 250g Ecoterex for pest control (Fall Armyworm, Stalk Borer)
- 200g grain protectant dust

Method

1. **Training, Planification & Preparation:**

- Farmers clear weeds and apply mulch after summer.
- One plot (16m × 39m) is sufficient to feed a family for a year.

- Farmers unable to afford packs can use alternative organic inputs.

2. **Field Marking & Digging:**

- Plot marking with permanent pegs at corners.
- 1,456 planting stations are dug, aligned across the slope.
- Farmers prepare the field by October 25th.

3. **Planting Process:**

- Basal mix (fertilizer + lime) is applied at 8 cups per station before planting.
- If the pack is unavailable, 1 tin of compost is used per station.
- After first effective rains, three maize seeds per station are planted.
- Seeds are covered with fine soil and topped with mulch for moisture retention.

4. **Weeding & Thinning:**

- Continuous weeding to prevent seed spread.
- After 2-3 weeks, seedlings are thinned to 2 plants per station.
- If only one plant emerges, the neighboring station is left with three plants.
- No transplanting or gap-filling is allowed.

5. **Fertilization & Pest Control:**

- First top dressing (ammonium nitrate) applied 2-3 weeks after germination (5 cups per plant in small holes).
- Alternative: Chicken manure soup can be used if ammonium nitrate is unavailable.
- Pest control: 250g Ecoterex applied during thinning (half a pinch per plant).
- Second top dressing is applied at tasseling stage.

6. **Harvesting & Post-Harvest Management:**

- Cobs are harvested, while stalks are left standing.
- Final weeding is done, and stalks are knocked down to serve as **mulch for the next season.**

Conclusion

With simple methods and inputs, a family can easily feed itself for a year using Pfumvudza. Once a farmer masters one plot, additional plots can be cultivated for cash crops like legumes, increasing household income. The method aligns with Foundations for Farming principles:

- On Time
- To a High Standard
- Without Wastage
- With Joy

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It is extremely important to note that the use of techniques such as mulching, crop rotation, crop diversification and the introduction of green manures, together with composting, ensure that the fertility of the soil is constantly improved. In this way, it is possible to gradually move away from the use of chemical fertilisers and use only one's own resources.