



World Wide Grain Production

	1961		2003
	Tons / Hectre		
USA:	4.5	<	10
ASIA:	2	<	4.5
AFRICA:	1	-	1
ZIMBABWE:	1.5	>	0.5

*Kofi Annan – World Economic Forum on Africa,
February 2008



What makes one nation produce more
and another produce less?



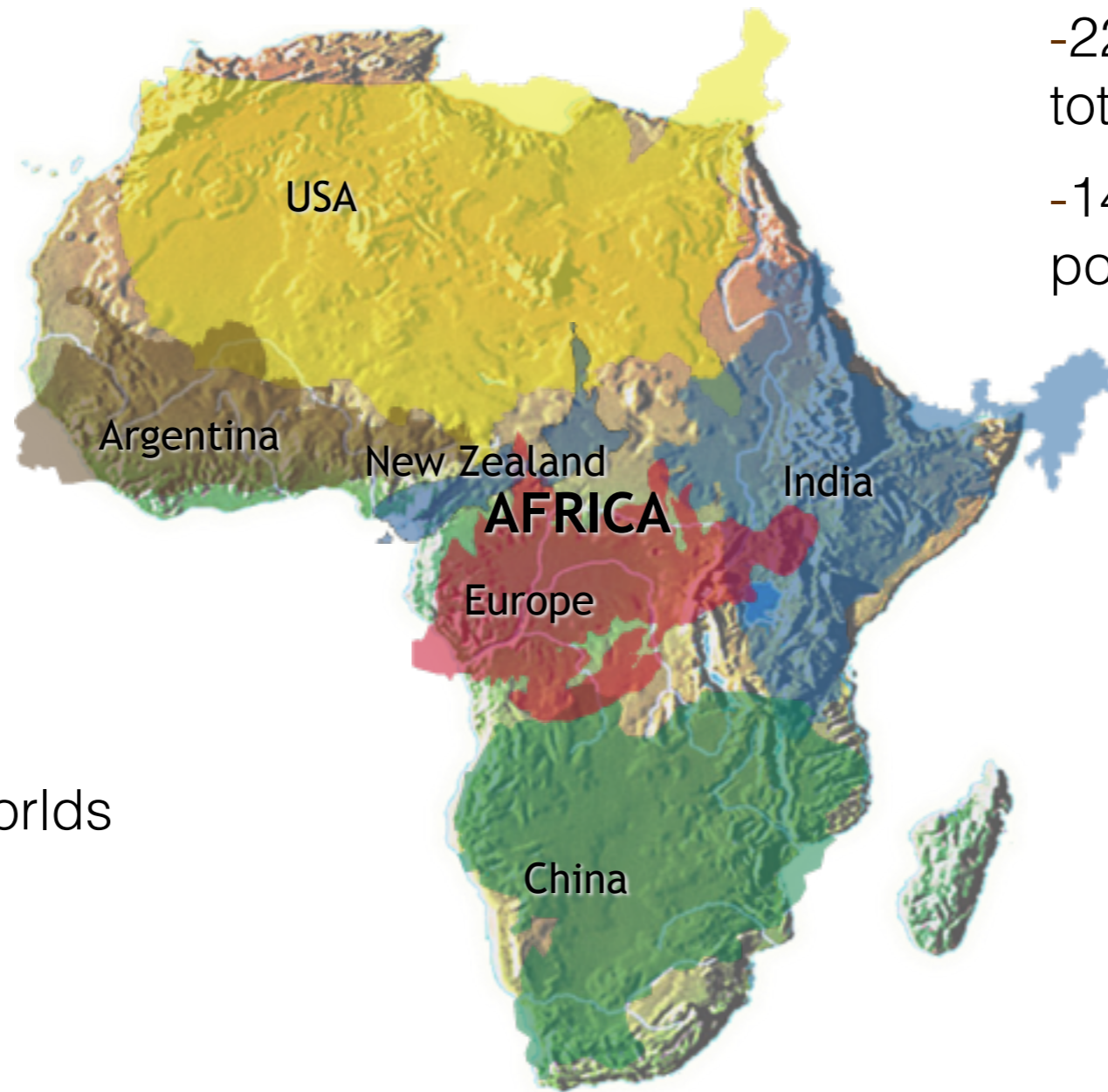
Africa is Blessed Natural Resources

- Energy
 - 40% of the world's hydro electric potential
 - 7% of world's proven oil reserves (more than North America, Russia, Europe and Asia-Pacific combined)
 - 7% of natural gas
 - 6% of coal
 - Sahara Desert covers solar energy field of 9,065,000 km
 - Wind

Source: Against all Hope: Hope for Africa - Darrow L. Miller and African Working Group



The Potential of Africa



Africa

-22.3% of worlds
total land mass

-14% of world's
population

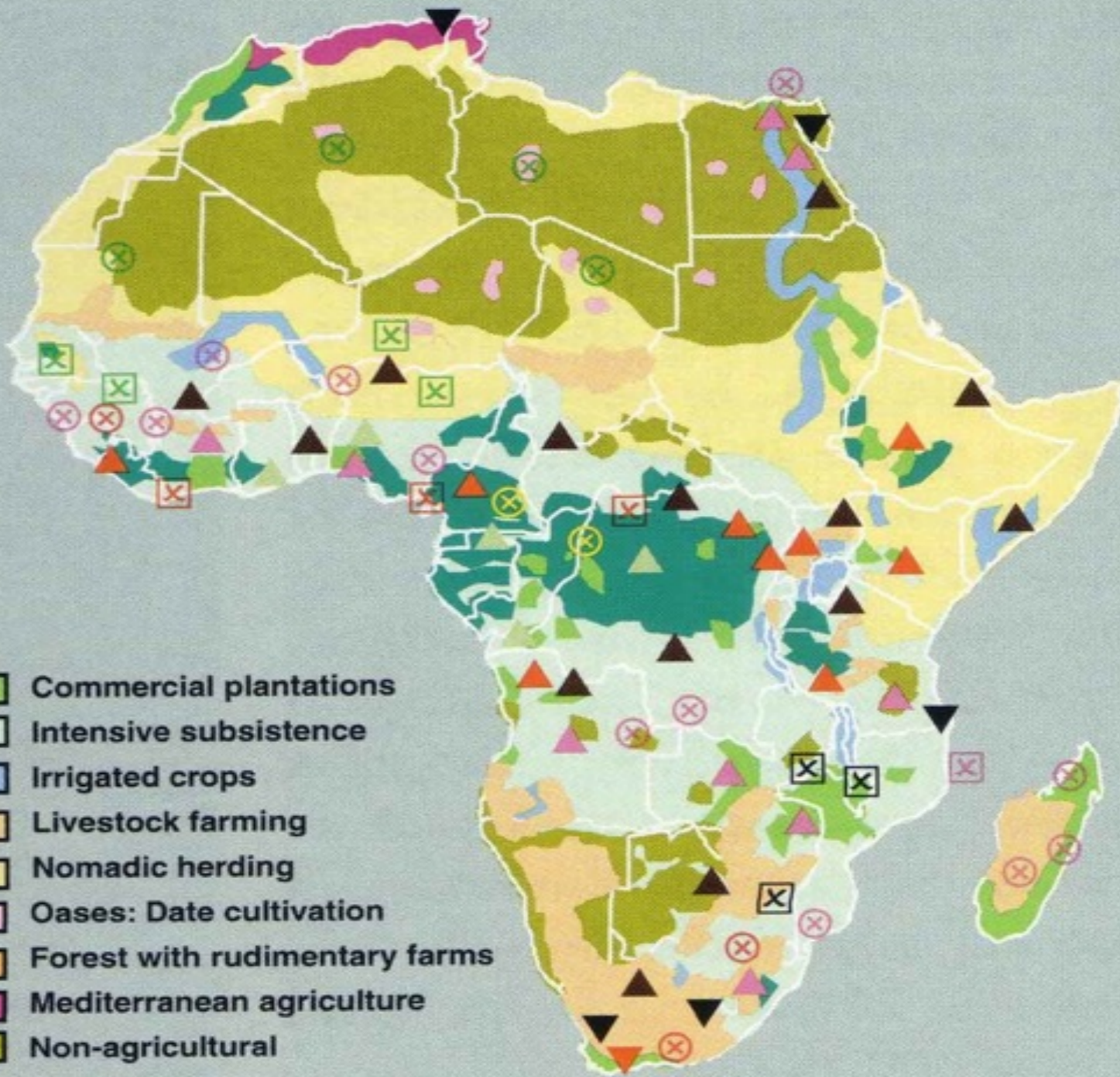
Superimposed
Countries

- app. 20% of worlds
total land mass

- 54% of world's
population



African Agriculture



African Agriculture

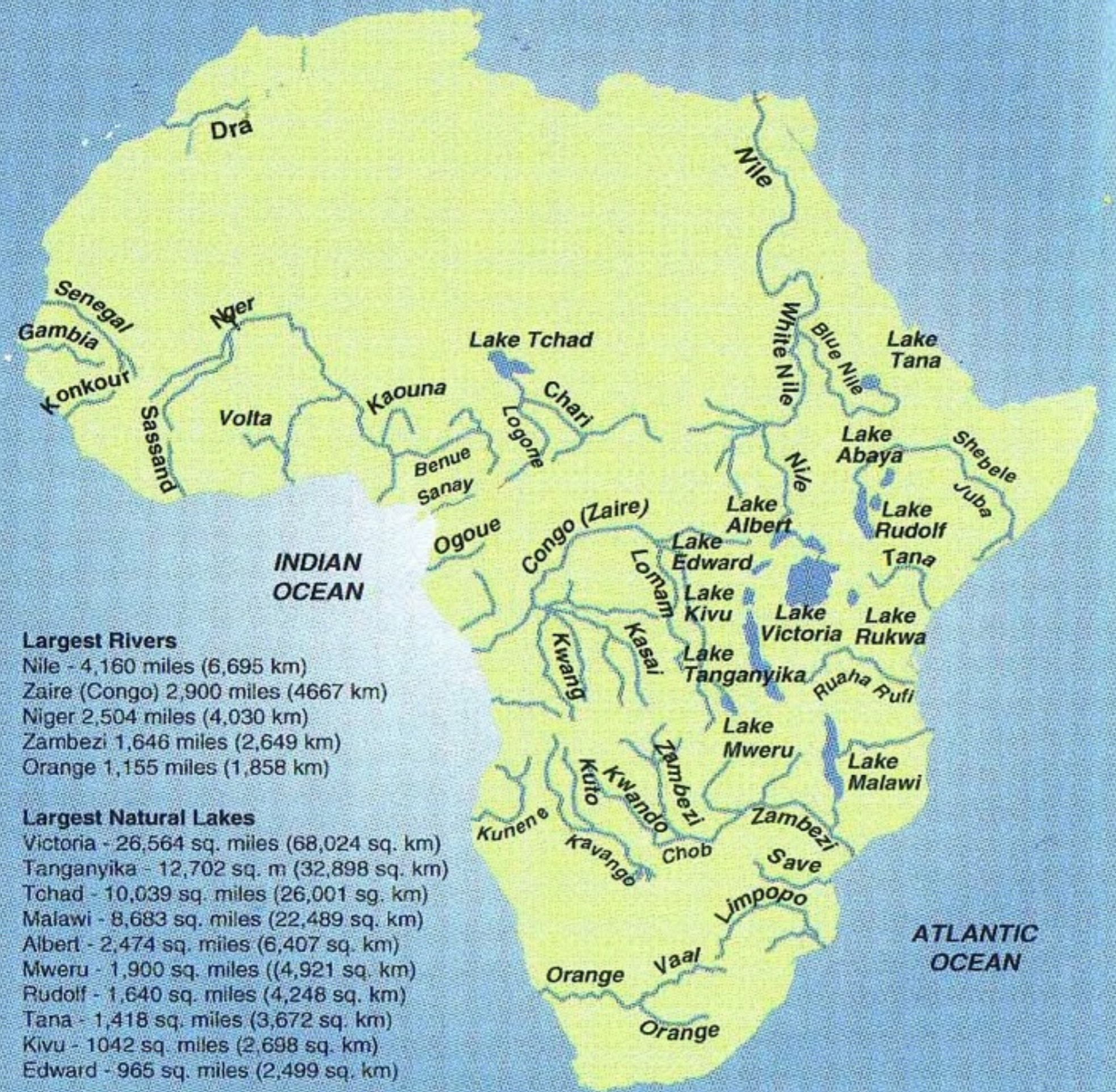
Business Books International

- | | |
|----------|-------------|
| ▲ Cocoa | ☉ Oil Palm |
| ▲ Coffee | ☒ Peanuts |
| ▲ Corn | ☒ Rubber |
| ▲ Cotton | ☒ Sisal |
| ⊗ Dates | ☒ Tobacco |
| ⊗ Fruit | ▼ Vineyards |
| ⊗ Rice | ▼ Wheat |



AFRICA'S RIVERS AND LAKES

Africa's Rivers & Lakes



Largest Rivers

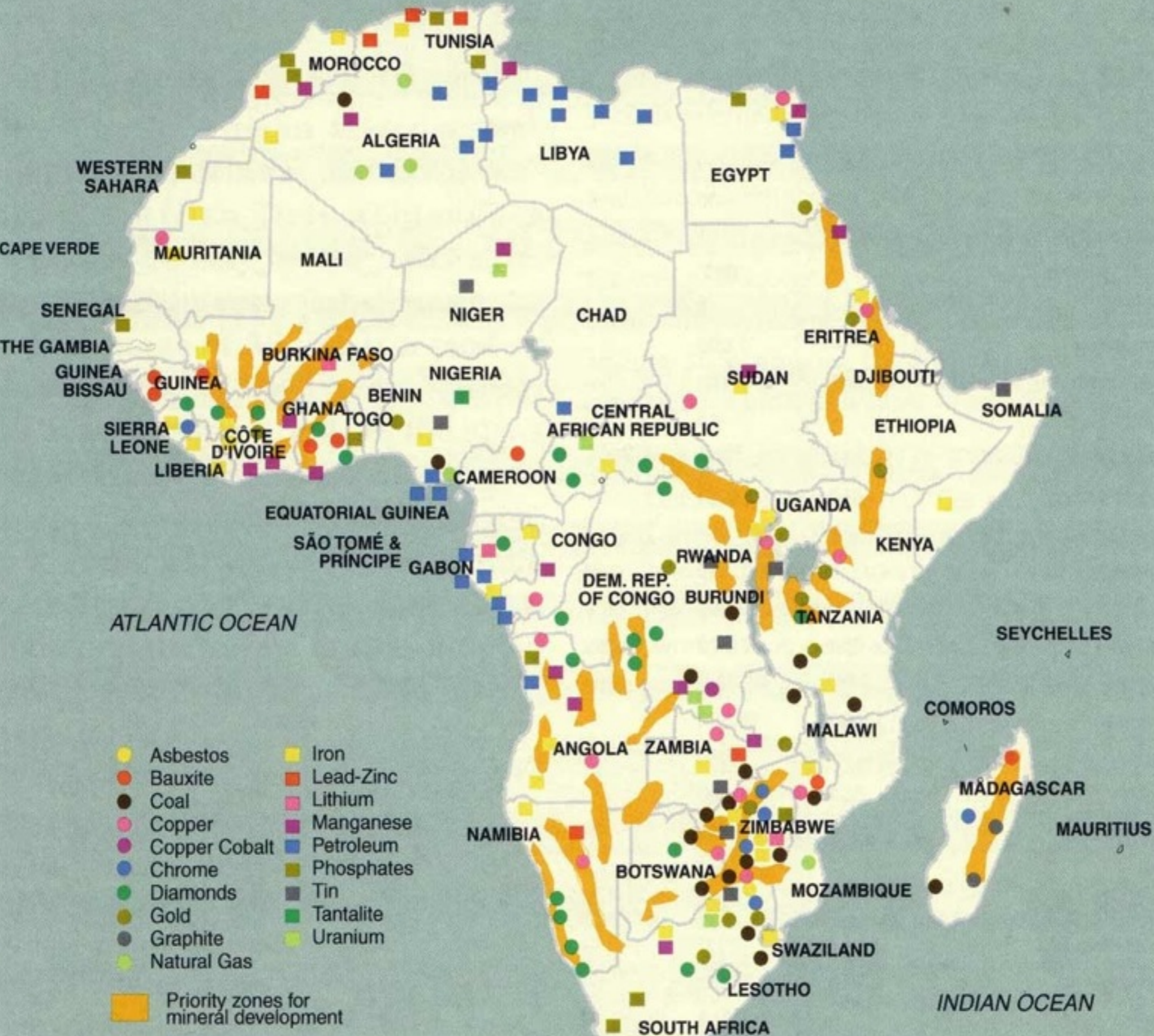
- Nile - 4,160 miles (6,695 km)
- Zaire (Congo) 2,900 miles (4667 km)
- Niger 2,504 miles (4,030 km)
- Zambezi 1,646 miles (2,649 km)
- Orange 1,155 miles (1,858 km)

Largest Natural Lakes

- Victoria - 26,564 sq. miles (68,024 sq. km)
- Tanganyika - 12,702 sq. m (32,898 sq. km)
- Tchad - 10,039 sq. miles (26,001 sq. km)
- Malawi - 8,683 sq. miles (22,489 sq. km)
- Albert - 2,474 sq. miles (6,407 sq. km)
- Mweru - 1,900 sq. miles ((4,921 sq. km)
- Rudolf - 1,640 sq. miles (4,248 sq. km)
- Tana - 1,418 sq. miles (3,672 sq. km)
- Kivu - 1042 sq. miles (2,698 sq. km)
- Edward - 965 sq. miles (2,499 sq. km)



African minerals



African Minerals



Internal and External Development



External Development :

Foreign Aid
Adding Material Wealth



Internal Development:
Personal Growth and Maturity



FFF Developed 4 basic principles to teach, promote and demonstrate personal growth.

On Time

At Standard

Without Waste

With Joy



Making a Profit is Key.

Profitability and Health of Eco System = Sustainability



- Feed your family
- Sell surplus to help buy next year's inputs
- Sell and make a profit and pay for other living expenses
- Give to others

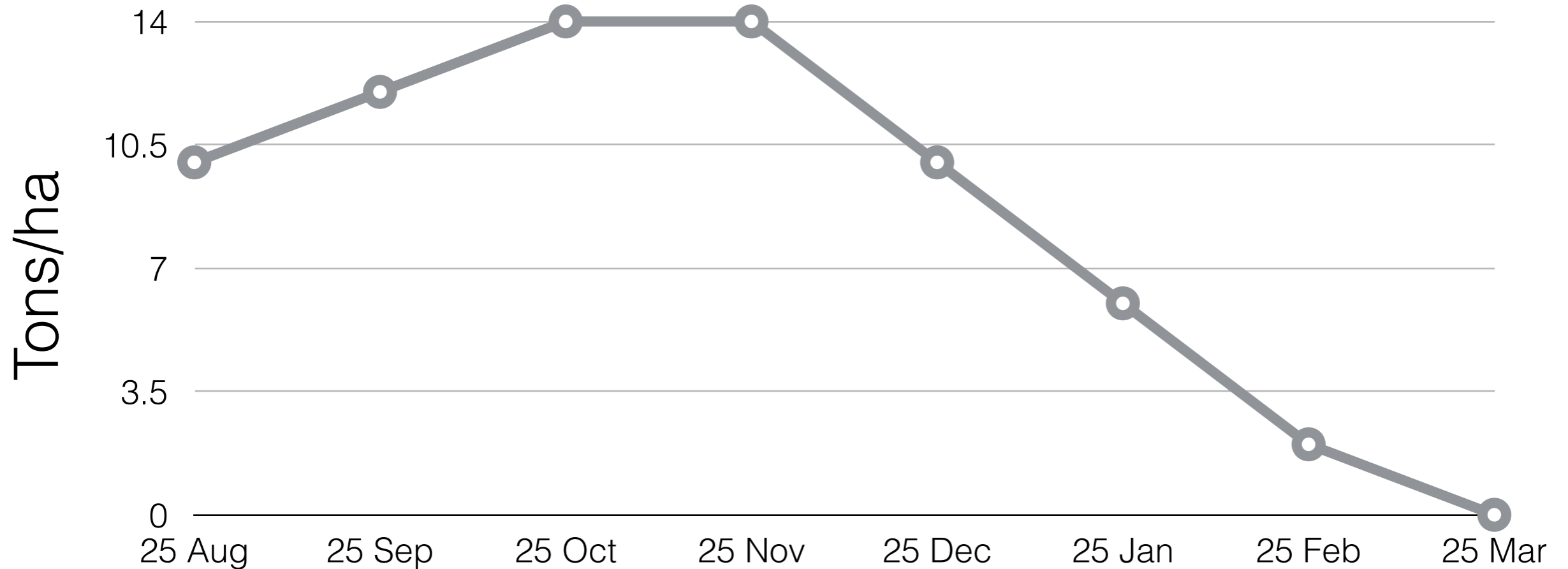


On Time:

- Many cultures around the world follow and track the moon.
- The summer solstice is the longest day (June 20-22)
- Planting at the right time can drastically improve your profit with out costing you any more capital.



Southern Hemisphere Crop Yields Based on Sowing Data



- After Nov 25th a farmer loses 120kg/ha per day.

*Chart referenced from FFF Zimbabwe



At Standard:

- Do everything with precision and excellence
- This allows us to maximize a specific plant's potential
- It allows us to record data
- Recorded data will allow us to grow, adjust and develop



With Joy:

- Every where in the world a farmer is always pessimistic
- Apathy is one of the most powerful hindrances of development in every culture.
- Apathy blocks creativity
- Joy is encouraging, contagious and shares hope.



Without Waste:

- The world is full of resources!
- The earth does not waste
(The Water Cycle and Decomposition)
- Allowing wastage can develop a bad habit that will eventually become detrimental to ones development.



Things We Waste:

- Natural Resources
- Time
- Energy/Labor
- Opportunities
- Reputation
- Money
- Seeds



“Not Wasting” looks like.....

- Composting (local free materials)
- Weeding regularly (water and labor)
- Mulching (water and labor)
- Measuring amendments and inputs (capital)



Thermal Compost:

- Green Material 40%
- Dry Material 40%
- Nitrogen Source +/-20%
- Water
- Metal wire or rod
- Shovel





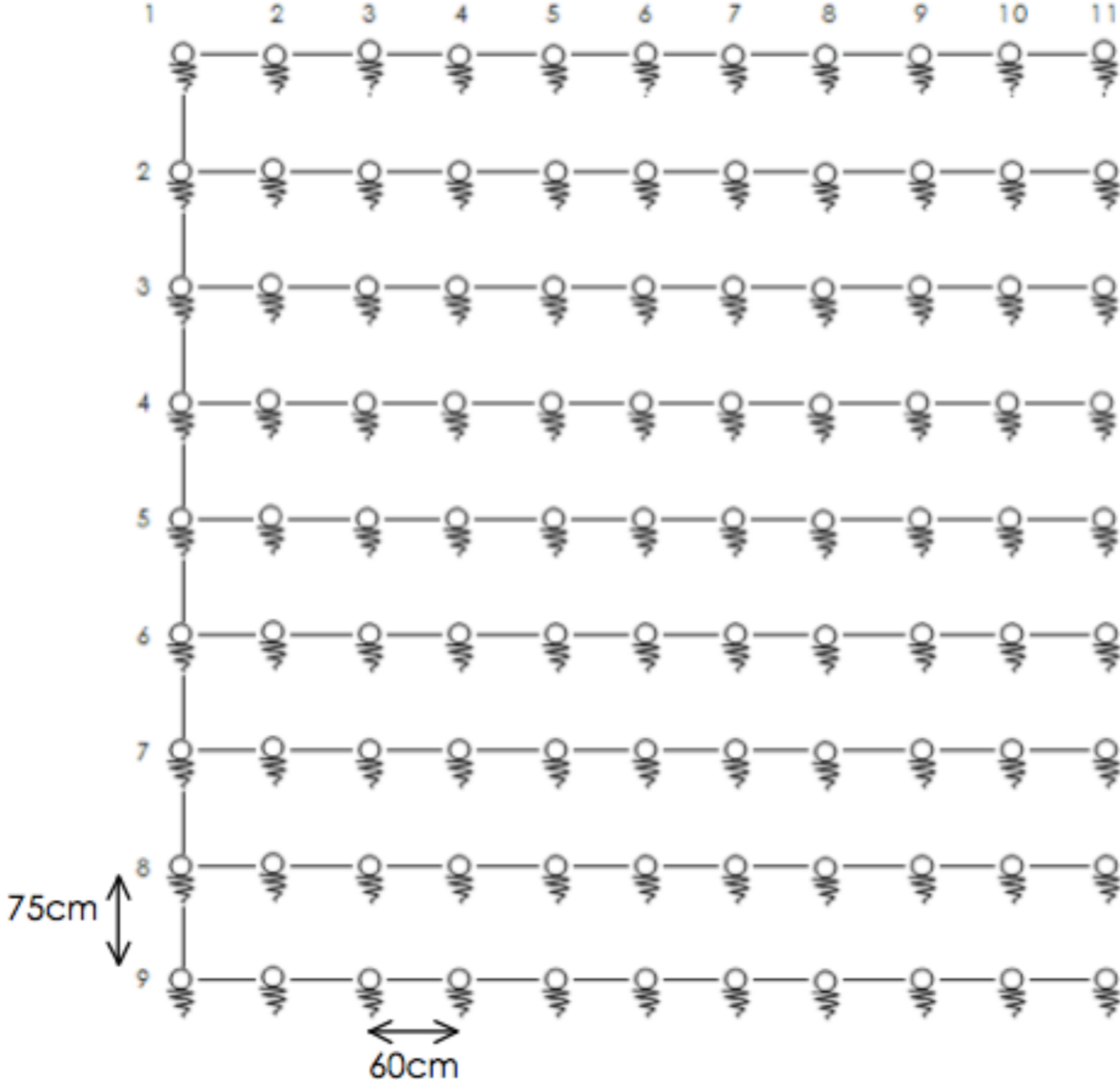


How FFF Models the 4 Principles:

- Measures and Marks out a piece of land (sq)
- Places permanent stakes at the four corners
- Cover land in mulch
- Makes a measuring stick of 75cm
- Makes a measuring rope with bottle caps placed every 60cm.
- Stretches the string across the field at the top of the slope and digs a pit everywhere there is a bottle cap
- Moves the string down hill the length of the measuring stick
- This method will allow farmers to plant the following crop in the same pits used before without disturbing the soil and utilizing any remaining amendments left in the ground.



PLANTING STRING WITH MARKERS EVERY 60cm
STRETCHED BETWEEN TWO PEGS



PLANTING
HOLES WITH
SOIL
MOUNDS
DOWN
SLOPE



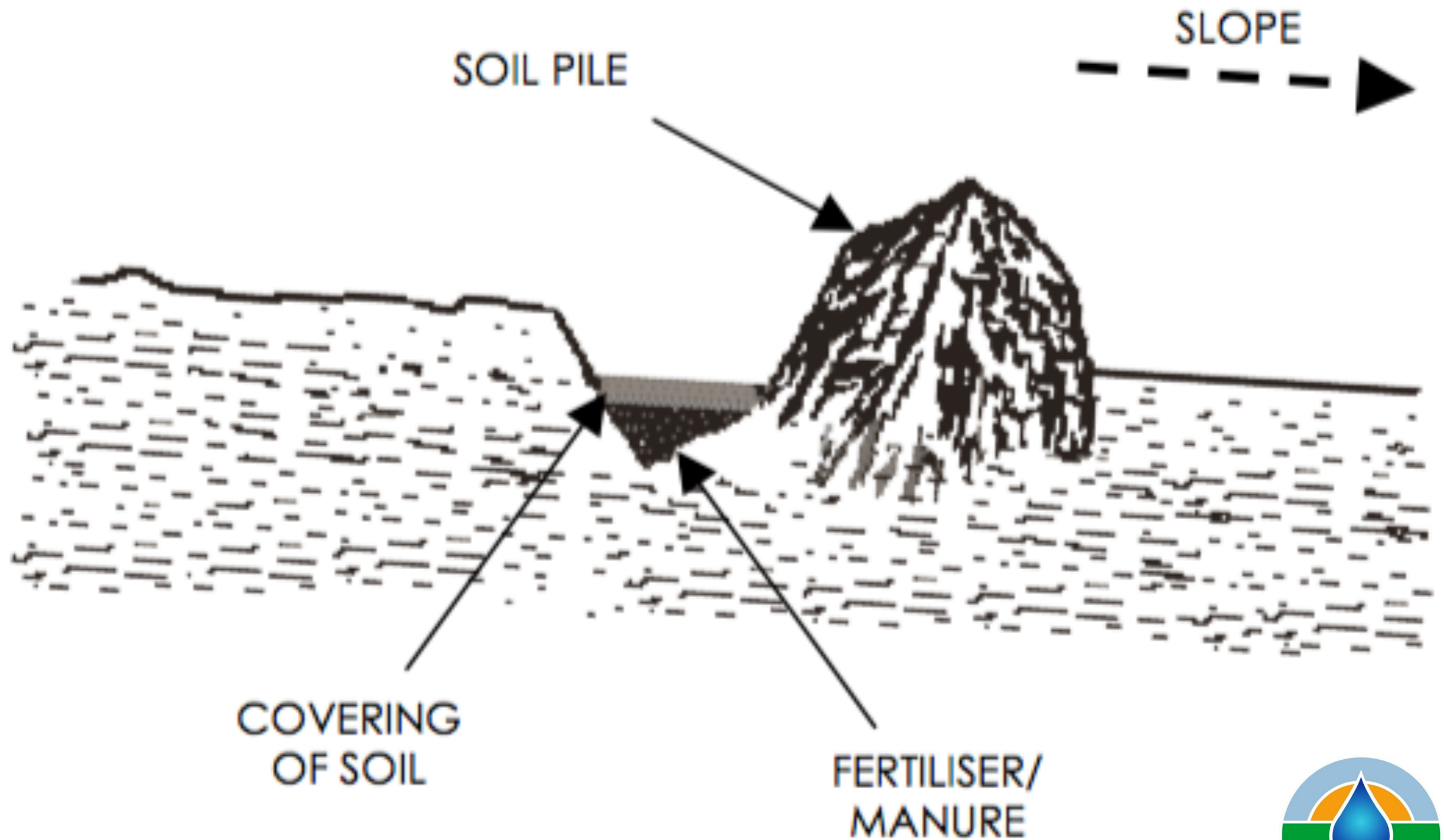


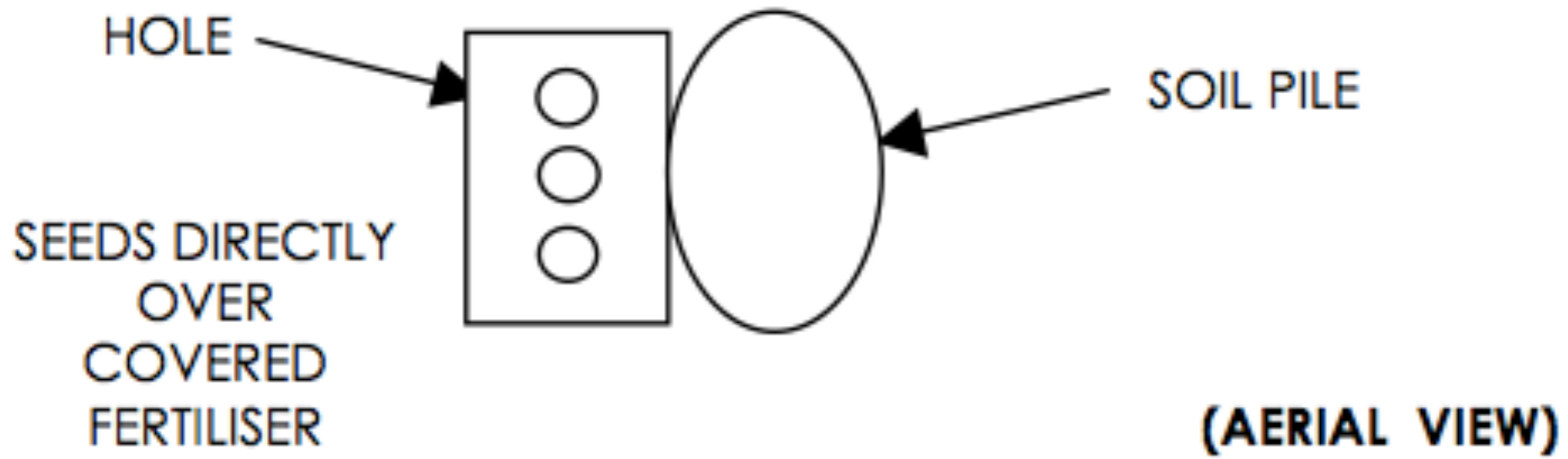
How FFF Models the 4 Principles:

- Places amendments in the pit and covers with soil and then waits for the right time.
- With the time is right (sun and rainfall), the farmer then plants the seed and covers with soil.
- The farmer will need to weed on a regular basis in order to cut weeds when they are small, weak and without seeds
- Thin the crop 2 weeks after the plant emerges
- Top dressing 3 weeks after the plant emerges or split into two top dressings at 2-3 weeks and 7-8 weeks
- Continue weeding
- Harvest, leaving stalks and husk in the field as the next crops mulch
- Step on stalks to lay them down and kill stalk bore



PLACEMENT OF FERTILISER



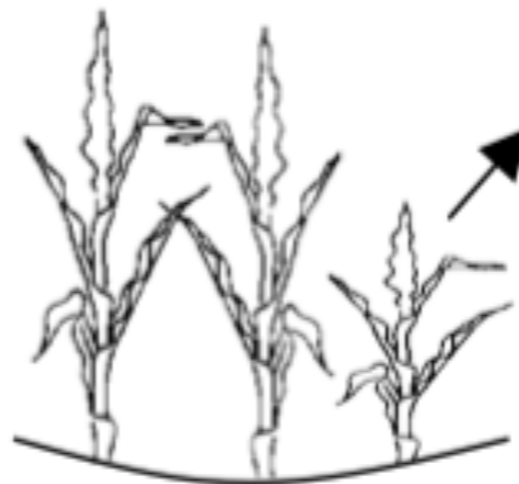




IF ONLY ONE PLANT HAS EMERGED IN ONE STATION LEAVE THREE ON ONE SIDE TWO ON THE OTHER.



IF NO PLANT HAS EMERGED IN A STATION, LEAVE THREE PLANTS ON BOTH SIDES.



REMOVE THE WEAKEST PLANT







Ploughed vs. Unploughed Soil

CEDARA Research Station, South Africa

...with 63mm of simulated rain on 4% slope over 30 min

- ploughed: 10% water infiltration, 28.5 t/ha soil ran off
- unploughed: 94% water infiltration, 1 t/ha soil ran off



Ploughed vs. Unploughed Soil with Mulch

- Water evaporates from the surface
- Low water table
- Roots grow proportionally larger than plant above the soil
- Soil structure is lost and organisms killed creating a soil very grainy (Sand)
- Mulch allows natural organisms to thrive
- Soil moisture is maintained
- Soil structure is maintained and acts like a sponge
- High water table



Well Watered Garden

- 6m x 6m demonstration plot
- its small to make management easy
- often times watered







- All pictures referenced from [facebook.com \(https://www.facebook.com/pages/Farming-Gods-Way/112975465431574\)](https://www.facebook.com/pages/Farming-Gods-Way/112975465431574)
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