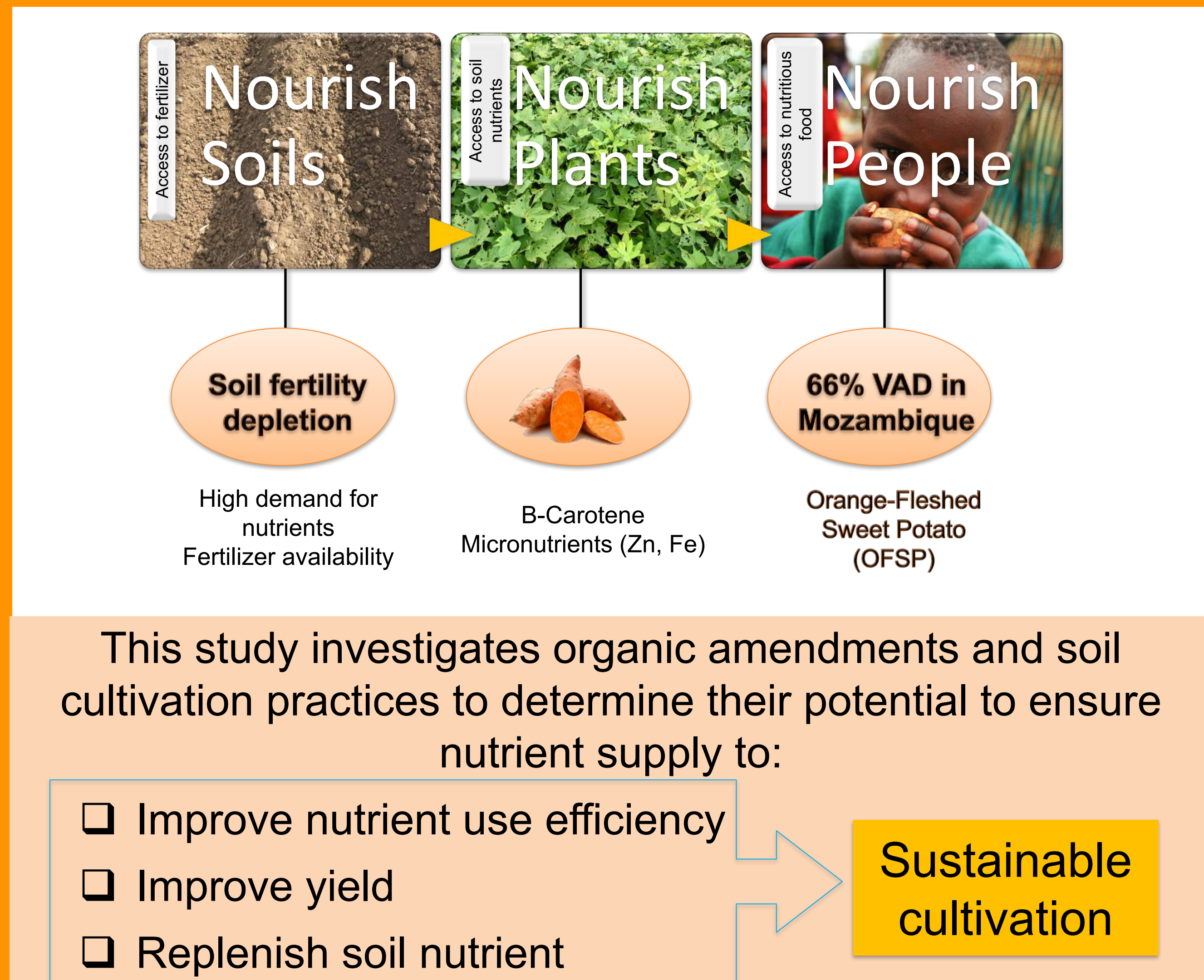


# Organic management of soil fertility for sustainable sweetpotato production

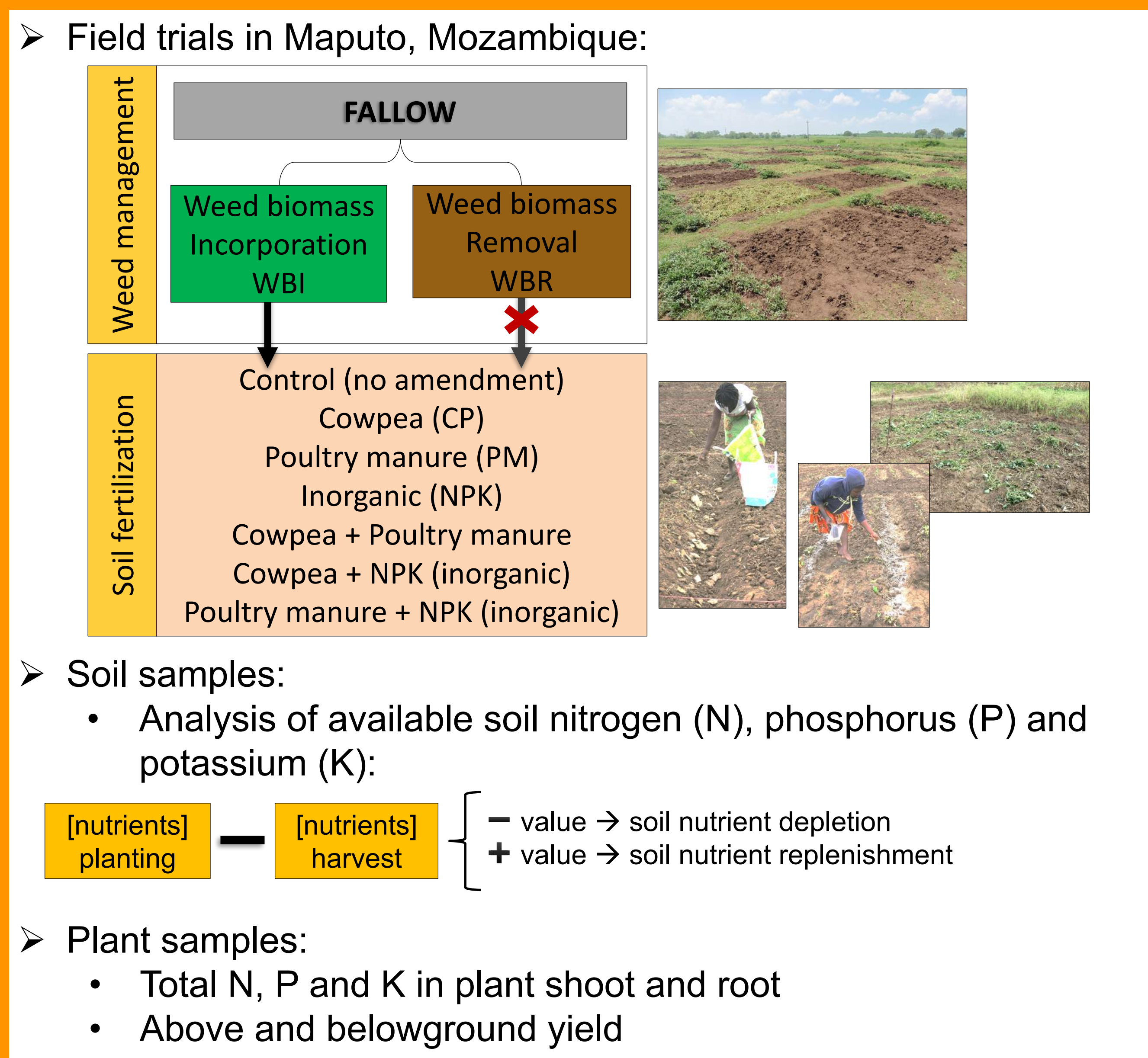
Feola Conz, Rafaela<sup>1</sup>, Pereira, Engil I.P.<sup>1</sup>, Andrade, Maria I.<sup>2</sup>, Six, Johan<sup>1</sup>

<sup>1</sup>Sustainable Agroecosystems Group, Institute of Agricultural Sciences, ETH Zurich; <sup>2</sup>International Potato Center, CIP – Mozambique

## 1. Introduction



## 2. Methods



## 4. Remarks

- **Weed biomass incorporation preserve soil nutrient** proving to be a successful strategy to ensure long-term sustainable cultivation
- **Organic amendments supply nutrient efficiently**, achieving the same NUE as inorganic fertilizers
- **Agronomic productivity was the same for both organic and inorganic fertilized treatments**

## 3. Results

### Soil Nutrient Replenishment:

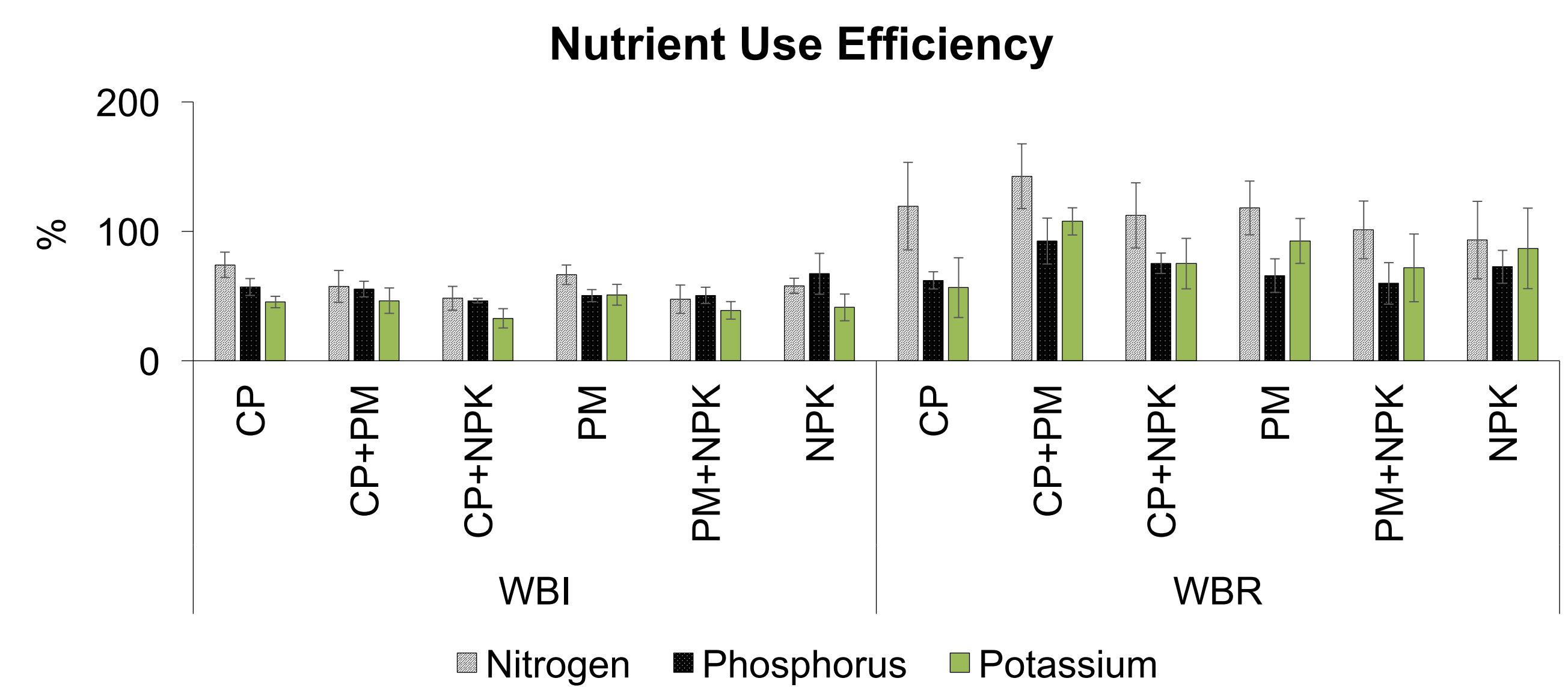
- Removing weed biomass causes higher soil nutrient depletion
- Poultry manure has high potential to preserve soil P and K

	WBI		WBR	
	P	K	P	K
Control	-	-	-	-
CP	-	+	-	-
PM	+	+	-	-
CP+PM	+	+	+	-
CP+NPK	+	+	-	-
PM+NPK	+	+	+	+
NPK	+	+	+	+

CP = cowpea, PM = poultry manure, NPK = inorganic

### Nutrient Use Efficiency:

- WBI had notably lowered NUE in comparison to WBR
- Organic amendments showed the same NUF as inorganic fertilized treatments



### Yield

- No effect of different soil fertility strategies on vines or root yield

