



Cropping Calendar of cabbage production in the highlands and system-level framing

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1. Introduction

As part of the CROSSROADS project, it is planned to set up a demonstration on farmlands using the Ethiopian kale (*Brassica carinata*) as test crop and show system-level (from input production, that is, organic fertilizer to production of the test crop) linkages. As a first step to this exercise, we conducted a focus group discussion (women's group) to understand the cropping calendar and management practice of the test crop (i.e., *Brassica carinata*). This back-to-office report documents the information obtained during the focus group discussion, the cropping calendar, and system-level framing as well as points out key farm visiting periods.

2. Participants

The discussion was conducted with selected women farmers who have substantial experience in Ethiopian kale production. All participants were purposefully selected from Gederat Kebele, and the discussion held at the Kebele farmer training center.

3. General information on current cabbage production in the area

Farmers in area produce Ethiopian kale by raising seedlings around their homesteads. Most activities, from production to marketing, are predominantly carried out by women farmers. The use of inorganic fertilizers for cabbage production is uncommon in the area, as farmers believe that such inputs reduce the quality of the cabbage, particularly it affects cooking time. Instead, farmyard manure is widely used to improve yields and enhance soil fertility. The key challenge reported during the discussion was soil-borne diseases and pests, and are affecting cabbage production in the area. Cabbage in rural Ethiopia is a food security crop and mainly produced in the backyards, managed by women and used for household consumption. However any excess amount from the backyard production and or when produced in wider fields will be sold in the market being a very good income (cash crop) for women.

4. Cropping calendar for cabbage production

The cropping calendar below presents the timing and sequence of key agronomic activities, from seed preparation and seedling production to planting, management, and staggered harvesting over the production year.

No	Activity	Timeline									Remark
		Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	
1	Seedling production										
	Seed collection										
	Land preparation										Produced via rain-fed
	Farmyard manure (FYM) application										
	Seeding										
	Weeding and tending										
3	Planting and management										
	Land preparation-tillage (two times)										
	Row making										
	First round farmyard manure application										
	Planting										
	Weeding and tending										
	Second round farmyard manure										
	Third round farmyard manure										
4	Harvesting										
	First round harvesting										The harvesting will be started at the beginning of September and continues the harvesting every two weeks

5. System-level framing

The cropping calendar was used to identify critical system-level management points that link vermi-compost production (please see the shared back-to-office report), timely application, and crop production, thereby guiding the optimal timing of farm visits for technical backstopping, learning, and performance monitoring. The key periods for farm visits include:

(i) Pre-season system setup: Vermi-compost readiness

- Justification:** This stage focuses on ensuring that vermi-compost production cycles are completed or close to completion before major field operations begin, so that sufficient inputs are available on time. It involves verifying the quality, maturity, and quantity of vermi-compost for the planned three rounds of vermi-compost applications. Together, these actions determine whether the production system is fully input-ready ahead of the onset of rains and planting.

- **Timing:** April – May
- **System focus:** production readiness and input-crop synchronization

(ii) Crop development & adaptive nutrient management

- **Justification:** During this stage, farm visits focus on monitoring crop responses to earlier vermi-compost applications, particularly in terms of plant vigor, leaf color, and uniformity. This period allows for assessing whether supplementary vermi-compost or other organic nutrient adjustments are required alongside FYM to sustain healthy crop development. It also provides an opportunity to support farmers with adaptive management decisions under variable rainfall conditions, while reinforcing good agronomic practices such as timely weeding, soil cover management, and moisture conservation to enhance overall system performance.
- **Timing:** June–August
- **System focus:** *Performance monitoring and adaptive management*

(iii) Harvesting, learning, and system feedback:

- **Justification:** At harvest, farm visits focus on documenting yield performance and quality differences associated with vermi-compost use, while capturing farmer feedback on labor requirements, benefits, and practical feasibility. This stage generates evidence to support learning, system refinement, and potential scaling, and the results are used to inform planning and adjustment of vermi-compost production and application strategies for the next season.
- **Timing:** September (and continuing bi-weekly)
- **System focus:** *Outcome assessment, learning, and feedback into the next cycle*