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# Sample Costs and Returns for Producing Cabbage in Northeast Florida

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## Introduction

Round head cabbage is grown on approximately 7,000 acres in Florida. The Tri-County Agricultural Area of northeast Florida that includes Flagler County, St. Johns County, and Putnam County accounts for about half of Florida's cabbage acreage (USDA-NASS 2025a). In 2024, the F.O.B. value of cabbage produced in Florida was $67 million (USDA-NASS 2025b).

This report summarizes a study of costs and returns for producing round, green, head cabbage in northeast Florida. A sample budget for cabbage production in the 2024-2025 growing season was created in an Excel file to represent common production practices and estimate producer costs and returns. Two budget versions distinguish between production on owned farmland and rented farmland. The budget does not represent any one producer, nor does it represent a statistical average for the region. Actual costs and returns vary by producer, by field, and by year.

The sample budget accounts for cabbage production costs, including field operations, harvesting, packing, and sales brokerage fees. It does not include general and administrative costs of running a farm business, such as office space and supplies, business administration, accounting, and legal services. The sample budget shows potential gross profit, which is the return to general administration and profit before tax.

The cost and return study was funded by the USDA Risk Management Agency (RMA). In addition to being helpful for insurance purposes, the sample budget and this report may assist lenders, agricultural service providers, and producers to better understand the costs and potential returns associated with cabbage production in northeast Florida.

## Methods

The methods used for this study started with a literature review and meetings with crop specialists to learn about cabbage production practices. Then, in-depth interviews were conducted with two commercial cabbage producers and three Hastings Agricultural Extension Center (HAEC) staff who grow cabbage for research purposes and are familiar with common northeast Florida production practices. The in-depth interviews provided details on production inputs, equipment, labor, harvesting, packing, and marketing. Although some cost information was obtained from the interviews, the main focus was on agricultural practices and management, not costs.

Farm input costs were obtained from local input suppliers. Equipment purchase prices were obtained from manufacturers. Equipment depreciation rates and operating costs were estimated from published engineering formulas (ASAE 2015a and 2015b; Edwards 2015). Other cost sources included published agricultural labor rates (Florida Commerce 2025), published fuel costs (U.S. Energy Information Administration 2025), farm loan interest rate data (Federal Reserve Bank of Kansas City 2025) and county property appraiser websites. Market price data, crop yields, cropland rental rates, and crop insurance premiums were obtained from USDA sources (USDA-AMS 2025; USDA-NASS 2025b; and USDA-RMA 2025).

Costs are initially collected or estimated at the most appropriate scale, such as per-acre, per-field, per-pound, or per-farm. The budget summary shows aggregated cost estimates on a per-acre, per-pound, and per-field basis. The budget represents annual costs and returns for producing one crop of cabbage.

**Representative Farm**

The sample budget represents a hypothetical farm producing round, green, head cabbage during the 2024-2025 growing season. We assume the farm has 1,000 acres in vegetable production and that costs such as farm operations management and harvesting and packing overhead are shared across the total acreage. Individual cabbage fields may range from 10 to 85 acres (personal communication with producers and county property appraiser data). For the sample budget, we assume a 40-acre field with seepage irrigation, which is common practice for cabbage production in northeast Florida.

Cabbage in northeast Florida is typically planted only once per year per field parcel, but the producer will stagger planting dates across multiple fields. Cabbage may be planted September through February and harvested December through May. The round, green, head cabbage varieties may take 80 to 100 days from transplanting until harvest. Sorghum-sudangrass is typically grown as a cover crop on cabbage fields between harvest and the next planting of cabbage. Cover crop and field preparation costs are included in the budget, as they are part of the full annual cost of growing a cabbage crop.

**Operating Rates**

Wage rates used in our budgets are the average rates reported in the Occupational Employment and Wage Statistics for 2024 for Florida statewide. We used wage rates reported for (1) agricultural equipment operators; (2) farmworkers and laborers, crop, nursery, and greenhouse; and (3) farmers, ranchers, and other agricultural managers (Florida Commerce 2025).

Fuel prices used in this budget are average prices reported by the U.S. Energy Information Administration. For fuel used primarily in field preparation, planting, cultivation, and harvesting (diesel and gasoline), we used an average of the monthly average price in August

2024 through April 2025 for Florida (gasoline) or Lower Atlantic States (diesel). The highway diesel price was converted to an estimated off-road diesel price by subtracting fuel taxes of $0.6157/gallon. For propane, used primarily for forklifts in the packinghouse, we used an average of weekly Florida propane prices between December 2024 and April 2025 (U.S. EIA 2025a and 2025b).

Electric rates were obtained from a review of residential and farm electric bills in north Florida and personal communication with an electric utility company.

Relevant interest rates were obtained from the Federal Reserve Bank of Kansas City (2025). We averaged the quarterly reported rates for operating loans, 2024 Quarter 3 and 4, and for equipment loans, 2022 through 2024.

Custom service rates were obtained from in-depth interviews with cabbage producers and from service providers.

**Farm Machinery**

Descriptions of farm machinery used in cabbage production were obtained from the in-depth interviews with cabbage producers and HAEC staff. Farm machinery purchase prices were obtained from machinery manufacturers and online sources between October 2024 and August 2025. Machinery ownership and operating costs were calculated from engineering formulas provided by the American Society of Agricultural and Biological Engineers (ASAE 2015a and 2015b; Edwards 2015).

**Field Details**

We assume a 40-acre field planted entirely in cabbage. The field has a 6-inch well with a 15-horsepower submersible electric pump used for seepage irrigation.

In the budget version for owned farmland, field costs include property tax and insurance, a fixed electric standby charge, and depreciation and interest on the well, pump, and irrigation equipment. For owned farmland, total annual field costs are estimated at $90 per acre.

In the budget version for rented farmland, field costs include only the land rental cost. We use the average irrigated cropland rent reported by USDA-NASS (2025) for St. Johns County in 2021 to 2023, which was $221 per acre.

**Preharvest Field Operations**

Preharvest field operations include irrigation operations, machinery operations, farm vehicle and other labor operations, and custom services hired. Field operation details were obtained primarily from the in-depth interviews. Operating cost estimates use the most

recent published fuel and labor cost rates, as well as engineering formulas to estimate fuel consumption, repair costs, operating speeds, and depreciation rates (ASAE 2015a and 2015b; Edwards 2015).

Cost estimates for preharvest field operations are divided into variable and fixed costs. Variable costs include custom services ($33/acre), variable preharvest labor ($288/acre), irrigation power and repair ($26/acre), fuel for machinery & vehicles ($102/acre), and machinery & vehicle repairs ($75/acre). Fixed costs include fixed preharvest labor and operations management ($82/acre), farm machinery ownership or lease ($336/acre), and farm vehicle ownership or lease ($34/acre). Total cost for preharvest field operations is estimated at $976.

**Field Materials**

Material inputs used in cabbage production were identified by in-depth interviews with producers and HAEC staff. Although exact inputs and quantities vary by farm and field, common materials and application rates were selected based on the interviews. We obtained input price quotes from north Florida agricultural input suppliers between November 2024 and July 2025.

For the 2024-2025 growing season, we estimated seed and transplant production cost at $587/acre, fertilizer and lime cost at $479/acre, pesticide cost at $361/acre, and other materials at $51/acre. Total cost for material inputs is estimated at $1,477/acre.

**Harvesting, Packing, and Selling**

For expected yield, we averaged the USDA-RMA 2025 T-yields reported for Flagler, Putnam, and St. Johns Counties for green (fresh), transplanted, irrigated cabbage, and rounded to the nearest 100 to get 42,000 pounds per acre. That yield is close to the midpoint of the expected yields reported by the two producers we interviewed.

Cabbage is sold wholesale in various package sizes. 50-lb boxes are the most common, although some cabbage is sold in bags or smaller boxes. Packing material costs were obtained for 50-lb boxes and 50-lb bags from the producer interviews.

USDA-AMS (2025) reports daily Free-On-Board (F.O.B.) prices for 50-lb boxes of cabbage shipping from Florida. The 50-lb box price shown in the budget ($11.83) is the simple mid-point average of all daily high and low prices reported for Florida's 2024-2025 season (December 10, 2024 to May 15, 2025). All prices were for medium-sized, round, green-type cabbage. We estimated the price for 50-lb bags ($9.33) by equating the direct margin (subtracting broker fee and packing cost) to that of the 50-lb boxes. The estimated price is within the range reported by one of the producers.

A brokerage fee of 10% is subtracted from the F.O.B. value to get gross farm revenue, based on information from a cabbage producer interview.

Harvesting and packing costs, including overhead, were estimated from information provided in the producer interviews.

Food safety compliance cost was estimated from the producer interviews, and crop insurance cost was estimated for an APH cabbage plan at 60% coverage from the USDA-RMA (2025b) website.

**Budget Summary**

The budget summary in the Excel file pulls information from the other worksheets. Gross farm revenue from crop sales is estimated at $8,754 per acre. Total preharvest production costs are estimated at $2,714 per acre on owned land and $2,846 per acre on rented land. Harvesting and packing costs are estimated at $4,805 per acre. Gross profit is estimated at $1,235 per acre on owned land and $1,103 per acre on rented land.

Gross profit is calculated as gross revenue minus all production, harvesting, packing costs. It represents the return from cabbage production to general business administration and profit before tax. It does not account for nonproduction or general administrative costs, such as office space and supplies, business administration, accounting, and legal services.

A sensitivity analysis shows how gross profit would vary for different yields and weighted average prices.

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