2025 Crop Budgets for Wisconsin Processing Vegetables: Sweet Corn, Snap Beans, Green Peas, and Dry Beans

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August 2026

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Acknowledgments:
This work was supported by funding from the USDA Risk Management Agency. We want to thank the growers and staff from processing companies that helped us develop these budgets.

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Background

The University of Wisconsin – Madison project team, led by Dr. Paul Mitchell of the Department of Ag and Applied Economics (AAE), developed Cost of Production (Enterprise) Budgets for processing vegetable crops grown in Wisconsin. Specific budgets were developed for Sweet Corn, Snap (Green) Beans, Peas and Dry Beans in Wisconsin for the base year of 2025. These results were used to ensure value for existing risk management options and programs for the United States Department of Agriculture Risk Management Agency (USDA RMA).

To complete this program, two students were selected from the Agricultural and Applied Economics MS Professional Options (MSPO) Program, and they were tasked to research and develop individual budget templates for these crops. The students were directed by Dr. Jing Yi (Faculty Associate) from UW-Madison, AAE, by Dr. Deana Knuteson, UW-Madison, Department of Plant Pathology, and Jeremy Beach, AAE Instructor and Associate Director of the Renk Agribusiness Institute. Dr. Yi provided leadership in research and data analysis, Mr. Beach worked to assemble the student data from 2025 to prepare the 2026 report, and Dr. Knuteson led the outreach effort and coordinated work for the industry. Dr. Paul Mithcell reviewed all materials, plus coordinated the project and handled communication with the USDA RMA.

The development of the budgets began in the fall of 2024, and drafts were combined and reviewed by processing crop staff in winter of 24/25. Work resumed in 2026 when the budgets were edited to ensure accuracy for the industry and then developed into their final forms for initial delivery.

Specific Objectives and Deliverables

For this budgeting period, specific objectives were developed, and tasks were arranged to ensure delivery of each budget, assumptions and final white paper review. These objectives included:

1. Creation of enterprise budget templates and annual budgets for each crop (sweet corn, snap beans, peas and dry beans) which included production, operating costs, and variable and fixed costs. The production budget encompasses cultural and production practices and includes harvest, storage, and transportation costs. Estimated operational costs included overhead cash costs (land rents, insurance, etc.) and non-cash costs (depreciation of buildings and equipment, investment costs). Assumptions for cropping systems are delineated for each crop, and a break-even analysis of input costs versus yield amount is created to show what yields would return value to growers both overall and for variable costs for the cropping system. Budgets specify who (grower or processor) pays for each input or operation and details who determines the amount for inputs and practices.
2. Review of the current risk management assessment for USDA and cropping insurance programs occurred to designate if the risk management and insurance assumptions are valuable for the actual production systems in Wisconsin. A review of overall acres, trends and insurance analysis was completed.

3. Direct, individual discussion with processors occurred to review both the cost of production budgets and USDA RMA assumptions to ensure accuracy in actual production practices and economic returns. Growers then reviewed RMA insurance programs and values, and return on investments to evaluate insurance resources aid to growers.

Budget Use and Overall Review

The development of these tools should be used as a general analysis for the Wisconsin processing vegetable industry returns and costs breakdowns between processors and growers. Costs and returns for specific farmers, processors and individual fields will vary from these budgets. However, individuals or companies can use developed budget tools and review risk management and insurance value, needs and returns for growers. Each spreadsheet can be altered, and individuals can enter their own specific detailed costs to aid budgeting and cost comparisons between processors and growers. Specific details related to Wisconsin production are included to help clarify each individual cropping system.

Conclusion

These budgets provide growers and processors with detailed budgeting tools and actionable insights through break-even analysis. Future collaboration with growers and policymakers is essential to refine insurance mechanisms, ensure economic sustainability, and enhance the resilience of these processing vegetable production systems.

The accompanying spreadsheet of the crop budgets is available at https://aae.wisc.edu/pdmitchell/wp-content/uploads/sites/15/2026/09/2025-Vegetable-Crop-Budgets.xlsx, or contact Paul Mitchell at pdmitchell@wisc.edu or 608-320-1162.

Sweet Corn Budget Template

Overview: This provides information on the Sweet Corn Budget Template. Sweet corn is a valuable crop in Wisconsin's agricultural sector, particularly in processing vegetable systems. The budget analysis provides a detailed enterprise budget for sweet corn, evaluates the distribution of costs and responsibilities, and reviews existing insurance policies to support growers and processors in achieving agricultural economic sustainability.

Wisconsin Production: In 2025, Wisconsin farmers planted approximately 55,550 acres of sweet corn, of which 52,900 acres were harvested. The estimated average yield was 165 cwt per acre. The market price is $54.00 per cwt for fresh sweet corn and $73.80 per ton for processed sweet corn. For guaranteed contract processor pricing, returns are based on lower estimates (circa $84 per ton), but that cost accounts for the amount that growers receive directly based on their in-field expenses and is reduced by the direct expenses that the processor pays toward the crop during the growing season.

Wisconsin Market Value and Crop Use: The total market value of sweet corn in Wisconsin in 2025 was approximately $41 million. The fresh market contributes around $9.4 million, with a production volume of 174,600 cwt, while the processing market dominates with $31.6 million, accounting for 428,697 tons. Sweet corn is primarily processed into canned and frozen products, highlighting its essential role in the food processing industry.

Contracts with Processors: The sweet corn contract, typically finalized in February, commits growers to produce 9 tons per acre at $84 per ton, providing predictable revenue but requiring early planning. Processing contracts pay growers based on tonnage harvested from the field. To mitigate risk, growers receive a minimum payment of around $400 per acre, ensuring partial cost coverage if yields fall short. Under normal conditions, growers receiving $756 per acre exceed this minimum, while optimal yields (10–12 tons) increase profitability. A 1.5–2% price bonus applies for late planting (end of June), offsetting potential yield reductions from planting later. This structure balances risk protection and incentives, and ensures financial stability while rewarding higher production.

General Budget Review: The budget assumptions for sweet corn production in Wisconsin encompass a detailed and practical understanding of the agricultural inputs and operations required to manage this crop effectively. These assumptions include the costs associated with soil testing, which are calculated based on the labor and number of samples needed per acre. The budget also includes costs for essential inputs such as lime to maintain appropriate soil pH levels, and fertilizer applications that are critical for sweet corn's nutrient requirements throughout its growth phases. In general, processors pay for professional services (including field scouting and nutrient management programs), seed and planting costs, fertility, pest management scouting, insecticide and fungicide costs and applications, and all harvest and transportation. Growers directly pay for fertility inputs (although the amounts and program are determined by the processor), cover crops, field preparations, irrigation, cultivation, and weed management and herbicide programs.

Further, this budget assumes specific expenses for planting and seed costs, which vary depending on the type of sweet corn grown and the associated yield goals. For pest and disease management, the budget factors in the costs of chemicals and the application processes, which are crucial for protecting the crop from potential losses. Irrigation costs are detailed based on expected equipment lifespan and the water needs of the crop, reflecting the significant investment in infrastructure that sweet corn requires. Management and labor costs are split depending on who completes the activity and for processors, that is reflected in their

costs associated with the specific practice (e.g. insecticide costs include labor, application and material costs). Some of the overhead costs such as machinery and repairs are limited because usually the processing companies use their own equipment.

Sweet corn production follows a structured timeline to optimize yield and manage costs. In the fall prior to crop production, soil testing is conducted, and a cover crop is planted to improve soil health, along with fumigant and lime applications if needed. Spring preparation includes tillage, bed formation, and pre-plant fertilizer applications to prepare the field for planting. Planting occurs in May–June, followed by pest scouting, herbicide, and insecticide treatments. June–July involves in-season nitrogen applications, fungicide treatments, and irrigation to maintain crop health. Harvesting takes place in July–August, including picking, hauling, packing, and cooling, with storage and transportation costs incurred post-harvest. After harvest, growers prepare for the next season through soil testing and field evaluations, ensuring a sustainable production cycle.

Costs: The overall costs include both variable and fixed expenses that accumulate throughout the crop's growth and harvesting cycle. Variable Costs total approximately $756 per acre which covers crucial pre-harvest expenses such as soil testing, seeds, and fertilizers, and post-harvest costs including picking, hauling, and processing activities. Pre-harvest costs alone amount to $651 per acre, with additional specific expenditures like $64 per acre for chemical inputs such as fungicides and insecticides. Post-Harvest Costs are notably higher due to the labor-intensive nature of sweet corn processing, totaling $756 per acre. Fixed Costs are around $217 per acre, primarily encompassing machinery, land rent, and interest on operating capital.

Specifically, the breakeven yield falls around 7 tons per acre when considering only grower variable costs and using a price of $84 per ton, but more than 11 tons per acre is needed to cover all costs. However, this cost can be lowered if some specific rotational cropping needs are included in the accounting process.

Insurance: The insurance policy available for sweet corn is the Actual Production History (APH) plan. The average loss ratio for sweet corn insurance from 1989 to 2024 is 0.81. The highest recorded loss ratio occurred in 1993, reaching 2.50. The average insured acres in the last five years (2020-2024) is 189,000 acres.

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Snap Bean Budget Template

Overview: This provides information on the Snap Bean Budget Template. Snap beans (or green beans) are a valuable crop in Wisconsin's agricultural sector, particularly in processing vegetable systems. The budget analysis provides a detailed enterprise budget for snap beans, evaluates the distribution of costs and responsibilities, and reviews existing insurance policies to support growers and processors in achieving agricultural economic sustainability.

Wisconsin Production: In 2025, Wisconsin farmers planted approximately 50,000 acres of snap beans, of which 48,500 acres were harvested. The estimated yield is 3 to 5 tons per acre. The harvest price was $10.40 per cwt in Wisconsin.

Wisconsin remained the top producer of snap beans in the nation, contributing substantially to total U.S. production acres of 142,200 in 2025. To support high productivity, soil testing is conducted before planting, typically from fall to spring. Herbicide applications follow a two-stage process: preplant herbicide application in May-July, costing $39.62 per acre, and an in-season herbicide application at $9 per acre. These soil and herbicide management practices are essential for optimizing yield and maintaining crop quality.

Wisconsin Market Value and Crop Use: In 2025, the total market value of snap beans in Wisconsin was approximately $51.6 million. The Wisconsin fresh market industry contributes around $20.7 million, with a production volume of 119,900 cwt, while the processing market dominates with $30.9 million, accounting for over 243,500 tons. Snap beans are primarily processed into canned and frozen products, catering to consumer demand for convenient and long-lasting vegetable options.

Contracts with Processors: Snap bean production in Wisconsin operates within a contractual framework where agreements between growers and processors dictate payment schedules, yield expectations, and financial responsibilities. Typically, contracts establish minimum payment guarantees to growers, ensuring stable revenue streams despite market fluctuations. These contracts also outline quality standards, including size and moisture content that beans must meet for acceptance by the processor. The snap beans contract commits growers to produce 4.5 tons per acre at $155 per ton, providing predictable revenue but requiring early planning. Growers receive a minimum payment of around $310 per acre. Under normal conditions, growers earning $697 per acre exceed this minimum, and 2.5 tons is expected to yield profitability.

In general, processors pay for professional services (including scouting and nutrient management programs), seed and planting costs, fertility, pest management scouting, insecticide and fungicide costs and applications, and all harvest and transportation. Growers are responsible for pre-harvest activities, while processors generally handle post-harvest processing, including shelling, packing, and cooling. Growers directly pay for fertility inputs (although amounts and program are determined by the processor), cover crops, field preparations, irrigation, cultivation, and weed management and herbicide programs.

For operations such as pest and disease management, the budget factors in the costs of chemicals and the application processes, which are crucial for protecting the crop from potential losses. Irrigation costs are detailed based on the expected equipment lifespan and the water needs of the crop. Management and labor costs are split depending on who completes the activity and for processors, that is reflected in their costs associated with the specific practice (e.g. insecticide costs include labor, application and material costs). Some of the overhead costs such as machinery and repairs are limited because usually the processing companies use their own equipment.

General Budget Review: The enterprise budget for snap beans covers both variable and fixed costs. Total variable costs amount to $2,252 per acre, divided between pre-harvest and post-harvest expenses. Pre-harvest costs, totaling $989 per acre, include soil testing, seed purchases, fertilizer applications, pest management, and herbicide treatments. Soil nitrate testing, while recommended, is not required annually. Seed costs are $270 per acre, assuming a seeding rate of 60 lbs/acre at $4.50 per pound. Snap beans are classified into non-nodulating and nodulating types. Non-nodulating beans rely entirely on fertilizer inputs, while nodulating beans can partially fix nitrogen biologically, reducing their need for synthetic fertilizers. However, they can still absorb additional nitrogen if applied. Using nodulating varieties can lower nitrogen application rates to 40-60 lbs per acre, cutting fertilizer costs.

Fertilizer expenses include $91 per acre for nitrogen, $27.20 per acre for phosphorus, and $27.60 per acre for potassium, all borne by growers. Post-harvest costs, totaling $1,263 per acre, are primarily driven by picking and hauling ($314 per acre) and shelling and packing ($652 per acre). Fixed costs, amounting to $393 per acre, are mainly allocated to machinery, land rent, and interest on operating capital. These costs significantly impact profitability and vary depending on farm size and efficiency.

Snap bean production in Wisconsin follows a structured timeline to optimize yield and processing quality. In the fall, soil testing, cover crop planting, and fumigant applications prepare the field for the next season. In spring, cultivation, tillage, and fertilizer applications support early crop growth. Planting occurs in May–June, followed by herbicide treatments and pest management as needed. From May to August, additional nitrogen applications and irrigation (if applicable) help maintain crop health. Harvest takes place in July–August, with picking, hauling, and cooling managed by processors. Post-harvest, fields are prepared for the next planting cycle, ensuring continued soil health and productivity.

Costs: The total production cost per acre is $2,717, including both fixed and variable costs for both the grower and processor. With an expected yield of 2.5 tons per acre, growers may anticipate a net return of approximately $310 per acre under current market conditions. These financial insights highlight the importance of choosing the right bean variety (nodulating vs. non-nodulating) to optimize input costs and maximize profitability.

Insurance: Processing beans are insured under the APH plan. The average loss ratio for processing beans from 1989 to 2024 is 0.91. The highest loss ratio was in 1992, reaching 1.42. Over the last five years (2020–2024), the average insured acreage has been 87,000 acres. The insured acreage for processing beans recently peaked at almost 47,000 acres in 2020.

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Green Pea Budget Template

Overview: This provides information on the Green Pea Budget Template. Green peas (or peas) are a valuable crop in Wisconsin's agricultural sector, particularly in processing vegetable systems. The budget analysis provides a detailed enterprise budget for green peas, evaluates the distribution of costs and responsibilities, and reviews existing insurance policies to support growers and processors in achieving agricultural economic sustainability.

Wisconsin Production: In 2025, Wisconsin farmers planted approximately 26,500 acres of green peas, of which 24,400 acres were harvested. The estimated average yield was 46 cwt per acre. The market price was $196 per cwt for fresh peas and $379 per ton for processed peas. Guaranteed contract returns paid lower prices (circa $310 per ton), but that accounts for the amount that growers receive directly based on their in-field expenses and does not include costs that processors paid for their services to growers.

Wisconsin Market Value and Crop Use: The total market value of green peas in Wisconsin has varied from approximately $26.6 million (2023), to $12.3 million (2024) to most recently $16.5 million (2025). The most recent data on price returns are from 2023 and 2024, where fresh market accounted for about $274,000 in 2023 and $172,000 in 2024 respectively. Production volume of 1,000 cwt documents that the processing market dominates with $26.3 million for 2023 and $12.1 million for 2024 in crop value from 69,470 tons (2023) and 42,268 (2024) of utilized production. Peas are primarily processed into frozen or canned products.

Contracts with Processors: Pea contracts in Wisconsin are established before the growing season, with growers covering pre-harvest costs (around $350 per acre for single crops, $40 less for double crops), while processors handle most professional services, nutrient and pest management, and harvest and processing expenses. Processing companies work in partnerships with growers for pea production and look at innovations to save money including using variable rate nutrient applications and applying micronutrients effectively. Pea recovery numbers are low – often only half of the harvested pea yields are recovered as processed product.

General Budget Review: In general, processors pay for professional services (including field scouting and nutrient management programs), seed and planting costs, fertility, pest management scouting, insecticide and fungicide costs and applications, and all harvest and transportation. Growers directly pay for fertility inputs (although amounts and program are determined by the processor), cover crops, field preparations, irrigation, cultivation, and weed management and herbicide programs.

For pest and disease management, the budget factors in the costs of chemicals and the application processes, which are crucial for protecting the crop from potential losses. Irrigation costs are detailed based on the expected equipment lifespan and the water needs of the crop, reflecting the significant investment in infrastructure that peas require. Management and labor costs are split depending on who completes the activity and for processors, that is reflected in their costs associated with the specific practice (e.g. insecticide costs include labor, application and material costs). Some of the overhead costs such as machinery and repairs are limited because usually the processing companies use their own equipment.

Grower returns vary, but a minimum of around $400 per acre is expected, depending on yield and processor payments. Expected yields range from 2.2 to 2.9 tons per acre, with tenderometer readings determining quality as younger, softer peas earn higher prices, while older, less tender peas are valued at lower prices. Later planting (by the end of June) can earn

a 1.5–2% contract premium, though it may impact yield. Many times, peas are paid to the harvester on a per hour basis instead of per ton basis, as the processor accounts for harvest and transportation costs.

Pea production in Wisconsin follows a structured timeline to optimize yield and processing quality. In the fall, soil testing, cover crop planting, and fumigant applications prepare the field for the next season. In spring, cultivation, tillage, and fertilizer applications support early crop growth. Planting occurs in May–June, followed by herbicide treatments and pest management as needed. From May to August, additional nitrogen applications and irrigation (if applicable) help maintain crop health. Harvest takes place in July–August, with picking, hauling, and cooling managed by processors, who assess quality based on tenderometer quality and maturity readings. Post-harvest, fields are prepared for the next planting cycle, ensuring continued soil health and productivity.

Costs: The overall costs for pea production include both variable and fixed expenses. Variable costs total approximately $594 per acre, covering pre-harvest costs ($489 per acre) such as soil testing ($9), seeds ($57), fertilizers ($113), and herbicides ($40), as well as post-harvest costs ($105 per acre) for picking, hauling, and processing. Fixed and overhead costs amount to $327 per acre, including machinery ($50), land rent ($37), and operating interest ($7). The total budgeted cost per acre is $922, requiring higher yields or optimized contracts to achieve profitability.

Current pea production costs ($1,067 per acre) exceed expected revenue at all analyzed yield levels (2.2 to 3 tons per acre at $310 per ton), but when analyzing only variable costs, these returns netted $204 to $452 dollars per acre.

Insurance: The current insurance policy available for green peas is the APH plan. The average loss ratio for green peas insurance from 1989 to 2024 is 1.04, with the highest recorded loss ratio of 1.96 occurring in 2011.

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Dry Bean Budget Template

Overview: This provides information on the Dry Bean Budget Template. Dry beans are a valuable crop in Wisconsin's agricultural sector, particularly in processing vegetable systems. The budget analysis provides a detailed enterprise budget for dry beans, evaluates the distribution of costs and responsibilities, and reviews existing insurance policies to support growers and processors in achieving agricultural economic sustainability.

Wisconsin Production: Dry beans, including kidney beans, are an important agricultural commodity in Wisconsin, covering up to 10,000 acres grown per year. Kidney beans, particularly red kidney beans, play a significant role, with approximately 4,500 acres dedicated to production, of which 3,200 acres are specifically for red kidney beans, yielding over 8 million pounds of beans annually. Chippewa Valley Bean, the largest provider of kidney beans in the world, collaborates with over 100 local grower partners in the Upper Midwest, supplying well over 50% of the world's kidney beans.

Production conditions and contractual arrangements are like those used in Minnesota, where growers bear 100% of the financial risk. The crop is primarily grown for processing markets.

Wisconsin Market Value and Crop Use: Dry beans are an important processing vegetable crop in Wisconsin, with annual planted acreage generally ranging between 5,000 and 10,000 acres. Most dry bean acres are contracted for processing and much of the production is for exports. As a result of recent trade disputes, acres and prices have fluctuated substantially. Market fluctuations and contract terms significantly influence profitability, making cost management and yield efficiency crucial for sustaining production in Wisconsin.

Contracts with Processors: The dry beans contract commits growers to produce 25 cwt per acre at a fixed price of $48 per cwt, ensuring stable revenue while necessitating advance planning and resource allocation. Unlike some other processing crops grown under contract, growers are responsible for all production costs, including harvest, which typically costs around $100 per acre. Due to increased transportation costs, processors evenly split transportation costs with growers, but all other costs are paid entirely by growers. Contract terms vary, but agreements with processors primarily focus on yield expectations and minimum price guarantees. The pricing structure is $48 per cwt, and contracts generally align with those used in Minnesota.

General Budget Review: The total budgeted cost per acre for dry beans is $1,211, which includes both variable and fixed costs. Pre-harvest costs are driven by seed, fertilizer, and irrigation expenses, while post-harvest costs mainly come from transportation and handling. The break-even yield is estimated at 25 cwt per acre, with a net revenue of approximately $39 per acre at the market price of $50 per cwt.

Costs Breakdown: The cost structure for dry bean production is categorized into pre-harvest and post-harvest costs, along with fixed expenditures. Pre-harvest costs total $741 per acre, covering essential inputs such as seeds, fertilizers, and pest management. Seed costs amount to $120 per acre, including seed treatments. Fertilizer inputs include nitrogen (~100 lbs. at $91.00 per acre), phosphorus ($27.20 per acre), and potassium ($27.60 per acre), all essential for maintaining soil fertility. Pest scouting, conducted twice per season, adds another $30 per acre. Additionally, irrigation requirements range from 6 to 8 inches per year, impacting water costs and overall resource management.

Post-harvest and fixed costs further contribute to the total production expenses. Trucking costs, an essential part of transportation logistics, are primarily covered by growers, though

some agreements may involve partial cost-sharing with processors. Picking and hauling costs $100 per acre, a responsibility borne by growers rather than processors, making logistics a key financial factor. Fixed costs amount to $332 per acre, with land rent at $300 per acre and machinery expenses at $25 per acre. Given a market price of $50 per cwt, the break-even yield is estimated at 25 cwt per acre, leading to projected net revenue of $39.33 per acre under current conditions. These cost considerations highlight the financial challenges and planning required for sustainable dry bean production.

Insurance: Dry beans have four available insurance policies: APH, Revenue Protection (RP), Revenue Protection with Harvest Price Exclusion, and Yield Protection (YP). The average loss ratio for dry beans from 1989 to 2024 is 1.01. The highest loss ratio was in 1989, reaching 2.97. Over the last five years (2020-2024), the average insured acreage for dry beans has been 1.46 million acres. The insured acreage of dry beans reached its highest levels in 2020 and 2021, accompanied by historically high liabilities.

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