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REGION 2000 FOOD HUB STUDY

BUSINESS PLAN

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SECTION 1: MISSION, VISION AND GOALS

FOOD HUB VISION

Building strong communities and empowering economic growth through agriculture and food system development

FOOD HUB MISSION

The Food Hub is dedicated to building a model food system that delivers quality, freshness, and value to consumers while improving the economic well-being of local farms and food processors.

GOALS AND OBJECTIVES:

1. Create opportunities for economic growth in the food and agriculture sectors.
2. Improve markets for locally produced foods within Region 2000.
3. Develop a suite of food safety and quality assurance services to increase markets for local food.
4. Develop products and services to enhance the export of food and agricultural goods to nearby metropolitan areas.
5. Leverage existing production strengths in the livestock and produce sectors to enhance value-added wealth creation.
6. Improve access to fresh and nutritional foods at all levels of the food supply chain.

SECTION 2: BACKGROUND

The food system in the United States is mature and efficiently functioning. This is particularly true within commodity sectors that trade largely undifferentiated products. Given the system's maturity and economies of scale and scope, margins tend to be low and there is often little room for new entrants.

As the commercial and retail side of our national food system depends on the efficiency of scale, the production sector is also aggregating, and thus the number of mid-sized family farms is shrinking. As a result, the national agricultural production sector is principally made up of large farms that efficiently produce crop and livestock products to supply very large markets.

At the same time that food systems are aggregating, a significant segment of consumers is demanding a better understanding of its food sources, and has a desire to support more human scale farming. So, small farms are on the rise, and these farms tend to focus on providing a direct retail experience for the very consumer base that is becoming less satisfied with the mainstream food system. Among the demands from this group of consumers are more transparency, improved food safety, greater access to local and

regional foods, and better merchandising support to help them better utilize perishable products.

According to recent research by the USDA, it takes more than direct-market farms to meet consumer demand, particularly for commodity products. Locally, specialty retailers like the Grass Roots Co-op; restaurants, like Main Street Eatery; and wholesalers, such as Conner's Produce, are actively attempting to bridge the gap. These same conditions are at play throughout the Mid-Atlantic region, putting locally and regionally sourced foods in high demand. But sourcing a reliable, quality assured supply chain has proven difficult.

Food hub models have been established throughout the region to answer the problems highlighted above. The best known example is the Local Food Hub in Charlottesville. This business is a facility-based aggregator of regional food products that resells products within Central Virginia and the DC metropolitan market.

The Local Food Hub is a not-for-profit entity that relies heavily on subsidies to maintain its operational capacity. Farmers selling through the Local Food Hub, and similar operations, are quite supportive of the model, but worry that it lacks operational sustainability due to the high overhead expenses—from large staff, facility costs, and low through-put—to be a long-term answer to their needs.

Regional farmers, in fact, point out that reaching wholesale customers, and dealing with the related transaction issues, is not facility dependent. Issues such as managing a sales relationship, building quality assurance programs, settling transactions, developing logistics systems, tracking inventory, and supporting retail merchandising are all important to making a sales transaction. All of these activities can occur without significant investments into a plant and equipment. Instead, the solutions are based in the intellectual capacity brought to bear to solve the common problems of producers and buyers, whether wholesale or retail.

SECTION 3: THE BUSINESS MODEL

The Food Hub business model, described in this section of the business plan, is specifically designed to meet the needs of farmers and food processors identified during the feasibility component of this project. This section provides an explanation of the business structure proposed and discusses key operating components.

THE CONCEPT

The Food Hub is envisioned as a multifunction, virtual program that enhances the value of foodstuffs produced by farmers and food entrepreneurs in Amherst, Appomattox, Bedford, and Campbell Counties as well as the town of Bedford and city of Lynchburg by offering food safety, transaction management, and marketing support services. As the Food Hub proves its ability to operate such programs, it is envisioned that the model will extend to

more asset based services such as warehousing, repacking, processing, and similar operations.

The backbone of the Food Hub is made up of three programs. The first, and most important, is the creation and management of a collaborative food safety and quality assurance program. The second is the development, testing and launch of an electronic transaction platform designed to support wholesale oriented trade in meat products, dairy, and produce to buyers both inside and outside of Region 2000. The transaction system will be robust enough to support logistics activities, inventory management, food safety tracking, regulatory tracking activities, and transaction settlements. The third is establishment of a marketing and sales program to include merchandising support for retailers.

Because the above efforts can be broadly construed as for “the betterment of those engaged in agriculture”, the programs will be developed within the not-for-profit organizational framework of the Internal Revenue Code section 501(c) 5 as an Agricultural Organization. The specific purposes envisioned are:

1. Improve food safety by creating and managing a collaborative quality assurance program that qualifies under the Food Safety Modernization Act as a GroupGAP program.
2. Improve transparency in the local food system at the transaction level by designing and implementing an electronic tracking system that is fully integrated into the food safety purpose.
3. Improve economic conditions at the farm level by promoting agricultural and food products produced in the Region 2000 counties

This structure will allow both farmers and non-farmers to participate in the development of the project and will limit the tax exposure of those participating while allowing certain non-philanthropic donations to support early program development. Additional benefits are attributable to this model and are discussed in the organizational and management sections of this plan.

The key business activities are described in more detail in the following sections of the business plan.

KEY COMPONENTS

This section of the business plan details the discrete operating elements of the business concept.

FOOD SAFETY AND QUALITY ASSURANCE

Food Safety

To make the mainstream retail market more accessible to small and medium sized growers, the USDA has developed a [GroupGAP](#) (Good Agricultural Practices) Food Safety Program, which will begin on April 3, 2016. The program helps producers and grower groups, such

as cooperatives and food hubs, comply with retailers' requirements for on-farm food safety certification. Under this program, any group of producers or supply chain partners who come together to implement a shared food safety program is considered a group. By working in a group, individuals can:

- Share resources and certification costs, saving about 60% over individual certification,
- Operate under a single, central quality management system,
- Demonstrate a recognized commitment to food safety,
- Develop a pool of diverse product offerings, and
- Undergo audit together to obtain certification.

Certification under GroupGAP allows members to meet mainstream retail buyers' food safety requirements, thus opening doors to larger, more stable, and more profitable markets. USDA has programs that cover fruits, vegetables, and specialty crops as well as livestock and poultry.

These local programs will be developed with retailer support, by local farmers, and perhaps local auction markets and will enable growers to implement their own Quality Management System (QMS), as required by the program. During the initial phase of the Food Hub development, grower recruitment and education will be key entry strategies. Once a group of participating growers has been established, the members will develop a QMS responsive to its customers' requirements, either developing it themselves or hiring a contractor to do so.

Once a group is established and has developed protocols, GroupGAP has two layers of audits. The first includes audits of all members conducted by the group's internal auditor. Internal auditors are chosen by the group and can be an employee, group leader or contractor. He or she must have a high school diploma, have 3 years of post-high school education and/or work experience in an agricultural field, and must successfully complete a basic auditor training course, training on the selected food safety standard, and USDA-specific training on audit-specific acceptance criteria.

The second layer is the formal certification audit conducted by the USDA. This audit focuses on the group as a whole to determine if it has fully implemented its QMS, conducted internal audits, and taken corrective actions where necessary. Annual onsite formal audits are conducted on randomly selected members. The USDA will inspect a minimum of the square root of the number of members, so, if there are 164 members, a minimum of 13 will be inspected. If there are 100, a minimum of 10 will be inspected. Also, the group determines the extent of the certification, so the USDA will only inspect the commodities that are included in the internal audit. This greatly benefits small diversified farms, with limited means to support wide ranging audits.

Quality Assurance

In addition to ensuring the proper implementation of food safety plans, another challenge for food hubs that aggregate products from small and mid-size farms is providing consistent quality products. Developing a quality assurance program is therefore a critical predevelopment step, as it proves to both producers and prospective buyers that the food hub is serious about providing the basis for a consistent and reliable supply chain. Separate quality assurance programs for meat and produce must be developed, as described below.

Beef and Pork Quality Assurance Program– The founding members of the organization must address quality assurance in the meat industry at the production and processing levels, and they may consider adopting quality assurance standards for both a premium commodity product as well as an “All Natural” premium meat line.

In meat, many of important quality assurance issues begin on the farm. These issues are far ranging and must be discussed with prospective buyers to ensure that their needs are well represented and that product is ready for market on a regular basis. This means the quality assurance program must address issues such as breeding frequency, genetics, animal health, vaccination sites, timing to market, ionophores, direct fed microbials, hormones, life stage management, and feeding protocols.

Natural meat programs have the added complexity of matching the specific requirements of the buyer to the quality assurance program, such as restrictions on animal by-products in feeds and supplements. Fortunately, the State of Virginia has a well-recognized and respected [beef quality assurance program](#) that can be adopted and modified for the specific practices and market timing required to meet buyer needs. Similarly, there are many easily adaptable Natural meat quality assurance standards that can produce grower premiums ranging from 2 cents per pound to \$1.20 per pound live weight. Both [Wegmans](#) and [Whole Food Markets](#) have adopted such protocols.

At the processor level, USDA is responsible for managing use of the “Natural” label designation. First, all meat, whether Natural, Organic, or conventional must pass USDA inspections for animal health, meat quality, and processing standards. Second, to have the nomenclature of “Natural” on the label, the processor must meet USDA standards for being minimally processed as set forth in federal regulations. Processors such as 7-Hills Foods in Lynchburg have the full capability to comply.

Produce Quality Assurance Program – Historically, quality assurance in the produce industry has been driven by USDA grade standards and the enforcement of the Perishable Agricultural Commodities Act (PACA). The grade standards and enforcement actions under this umbrella are best suited to commodity products in mainstream distribution channels and are sometimes difficult to apply to a supply chain dedicated to locally and regionally grown crops. Adopting such protocols may or may not generate additional premiums, but it is certainly the case that having a program in place can advance the sales acceptance of local products dramatically.

Developing standards for a produce program must be done on a crop by crop basis and is best accomplished by focusing on four key areas:

1. Harvesting – Standards are set for maturity level, quality, size, handling, heat/light exposure, packing, field source, etc.
2. Packinghouse – Sorting for maturity, quality, size, color, and defects/decay; temperature control; sanitation; preserving source identity; and sampling/inspection
3. Transportation – Loading, placement, temperature control, preserving source identity/batch integrity, and sanitation
4. Destination handling – Final quality check and receiving signatures

The Food Hub’s best starting point for a quality assurance program will be to adopt simple standards that are amended over time as needed. Standards can be as simple as those [recommended by USDA](#) or more complex, such as the sample standards attached in Appendix A to the Plan.

It is envisioned that the development of the quality assurance programs will be grant supported and that the ongoing operations will be funded by user fees or a check-off program that produces sufficient revenue to pay for operations and overhead.

REGIONAL FOOD TRANSACTION SYSTEM

The food hub cannot complete its mission without directly facilitating the wholesale transactions of goods and services. This is particularly true for small and mid-sized farms interested in wholesale trade arrangements outside of Region 2000, where local foods bring a premium. The challenges facing farms trying to access this market are myriad, and the common food hub approaches of building aggregation centers and creating information exchanges are not optimal, because they are too narrowly focused. Similarly, online “food hub” systems such as MarketMaker and MyFoodHub may fail to provide the services and performance buyers require.

Transaction systems must be robust enough to embrace the needs of both buyer and seller. For buyers, this means providing more than a listing of growers and products. At a minimum, the system must identify current and future inventory, terms of trade, logistics options, quality standards, and traceability. No matter the setting, these tend to be entry-level system requirements. For growers, a transaction system must effectively invoice, manage settlements, plan inventory, manage ordering, schedule logistics, assemble lots, report food safety requirements, and conduct various other functions. Within the above requirements, facility-based activities are often less important than the data interchange, scheduling, and relationship management functions that save both buyers and sellers time and money.

This element of the business plan will bridge these gaps by utilizing industry specific electronic platforms, such as Silver Creek Software’s Brokerage Management tools or

ASCTrac logistics management and ordering systems, to create an online sales platform with back-end support for logistics planning, accounting, and regulatory compliance.

A system within which producers, buyers, and handlers can interact is in high demand by most wholesalers and retailers interviewed in the feasibility phase of the project. Many retailers identified the initial crops and products for a test project which are included in Appendix B. The caveat is that the platform must be scaled to fit the users, the commodities, and the distribution modalities, and the demands for each segment vary significantly.

Before building or adopting any platform, the Food Hub will develop a pilot transaction and distribution system with hand-picked partners. This will allow the initial partner team to determine critical features and controls and develop a design program for the transaction and order fulfillment that will be tested in 2016.

This same team will form the basis of the pilot group that develops and tests the sales transactions. Initial product offerings will be limited to certain meat and produce items pulled from the product lists found in Appendix A, or as amended to suit the particulars of the pilot project. All activities will be organized, tracked, and benchmarked by a hired or contracted program manager. The pilot group will also generate feedback and benchmarking data to facilitate the creation and refinement of the transaction system as well as the quality assurance programs.

The pilot team will simultaneously focus on testing distribution and logistics management options to inform further system development. During the pilot phase, the team will primarily focus on developing and testing a plan for the use of third-party logistics as the preferred means of transportation and, perhaps, inventory management. This research will be used to generate real-time cost and operating information and may be supplemented at any time. The team will incorporate platform testing of products such as iTracker 3PL and ASCTrac into this phase.

At the conclusion of the pilot phase, the Food Hub will elect to proceed with the transaction system or take an alternative path. If the Food Hub decides to expand the program, the information gathered during the pilot phase must be integrated into a fully functioning transaction and logistics management program. While this may take many forms, it is anticipated that a web-based information management system will create the backbone.

It is likely that development of a fully integrated system will take three to eight months to build out. The development of the program will be funded through grant support through agencies such as USDA, Rural Development. Its operations will be funded by a standard brokerage markup of five to eight percent depending on the services incorporated.

REGIONAL FOOD MERCHANDISING SYSTEM

Simply providing local products at the store level is not sufficient to get most consumers to buy them. Building sales is also about providing retailers and institutions with the tools necessary to properly merchandise and market local products. Many food hubs have

tackled this issue by trying to build equity through branding and imaging. Research, however, indicates that merchandising strategies—including value-added services such as floor planning, display formatting, seasonal inventory management, source identification, grower presentations, educational materials (e.g. a dedicated YouTube channel), and product specific recipes and use tips—are far more effective in making point-of-purchase sales, when all else is equal.

The challenge for the Food Hub will be developing a merchandising program that supports both small markets and large format retailers. Small markets will need help with basic decisions about local food selections such as product placement, and large markets will expect more sophisticated and costly support in the form of EDI activities and in store events like farmer visits to regional stores.

Here is short outline of items that the team developing this segment should consider:

1. Regional Food Floor Plan
 - a. Availability Charting
 - b. Department Layout and Appearance
 - c. Fulfillment and Stocking Options
 - d. Integration of Value Added Items
2. Educational Tool Kit
 - a. Featured Growers
 - b. Recipes and Use
 - c. Nutrition Information
 - d. Food Safety
 - e. Children's Activities
3. Category Management Tool Kit
 - a. Source Identification
 - b. Specials and Sales
 - c. Product Care in Receiving & Handling
 - d. Packaging & Display Tips
 - e. Point of Sale Materials
 - f. Sampling & Demonstrations

Effective development of a merchandising program is the essence of brand development and brand loyalty in what is otherwise a commodity environment. It is the battleground in the modern store and will make the Food Hub a good retail partner in the meat case, produce department, or whatever other section of the store is relevant. This will make the Food Hub a value-added service provider and open options for product growth and expansion, if the products promised are delivered on the terms expected.

If successful with modest levels of merchandising and marketing activity, the program should be expanded to offer the retailer and the farmer more value. Following the example of [Lancaster Farm Fresh Cooperative](#), the addition of a CSA style local food package for direct sale or resale may serve as a catalyst for product expansion, all while offering a

means to balance local farm inventories during season. Such activities require dedicated space, which are not envisioned as part of the Food Hub during the start-up and early operating phases.

SECTION 4: FOOD HUB FACILITIES

The proposed Food Hub has very limited needs for facilities during its start-up and early operational periods. Most activities are office-based, requiring space for a program manager and support staff only. To the extent that storage and distribution activities require specialized facilities, these can be made available on a contractual basis within the community. For example, meat program aggregation and shipment can occur at facilities such as 7-Hills Foods, where the proper infrastructure and sanitary operating conditions are already in place. Similarly, commercial operations such as Conner’s Produce and the Lynchburg Community Market have produce-specific infrastructure and trained staff to manage those products. The costs of utilizing such infrastructure are built into the operating model as pick-and-pull storage pricing.

Only after the Food Hub has proven its viability as a brokerage and logistics manager, is it likely to be in a position to require facilities. The type and form of these facilities is unknown at this time since the operational requirements will be defined by what the Food Hub learns about the capabilities and interests of its suppliers, vendors, and customers.

SECTION 5: MANAGEMENT PLAN

This section discusses the suggested overarching organizational structure and key personnel requirements.

ORGANIZATIONAL STRUCTURE

The Food Hub is intended to be an independently operated, tax-exempt, member supported business that assists farmers in Amherst, Appomattox, Bedford and Campbell Counties. The will be a mission-driven business with a focus on food safety training, distribution and logistics, and marketing support, in an effort to bring more of the consumer dollar back to the grower.

ORGANIZATION TYPE

Federal law allows for organizations to be tax-exempt under a number of different chapters of the Internal Revenue Code Section 501(c). Specifically, [501\(c\)\(5\)](#) provides for exemption of labor, agricultural or horticultural organizations. Associations or corporations created under this statute are membership supported and must have a primary purpose that is meant to “better the conditions of those engaged in agriculture or horticulture, develop

more efficiency in agriculture or horticulture, or improve the products.” As envisioned, the Food Hub should be able to apply to the IRS for tax-exempt status under this section.

These types of non-profit agricultural organizations are mission-focused groups whose revenue is largely derived from dues and member services. Food Hub members will be supporting the organization as well as deriving benefit from its work. In general, Food Hub memberships will be limited to those involved in the food system as a farmer, wholesale buyer, processor, distributor, or retailer, and each member type will benefit differently, but all will be important to the healthy function of the organization.

To be involved in the supply chain systems developed by the Food Hub, businesses may be required to maintain a membership. Initially, this is not envisioned. Rather members and nonmembers will be able to participate in programs with tiered involvement rates and benefits.

Grower members will benefit by having lower cost access to the food safety and quality assurance programs, as well as becoming eligible to participate in the transaction system. Buyer members will be eligible for discounts on the brokerage fees assessed in the transaction system. The merchandising activity, both web-based and in-store, will benefit growers, buyers, and retailers by making products more attractive and accessible to consumers.

As stated, ACDS recommends a 501(c)(5) structure for the Food hub. However, there are other common tax exempt structures used by food hubs. For instance, The Local Food Hub in Charlottesville is organized as a 501(c)(3) charitable organizations, while others organize as grower or consumer cooperatives.

ACDS feels that requirements to be eligible for a 501(c)(3) are too restrictive in fundraising options, and have a 51% public funding requirement. While the (c)(5) organizations are restricted from some philanthropic grants available to (c)(3)s, law allows access to other forms of funding beneficial to a startup. Additionally, most 501(c)(3) organizations provide the bulk of their public benefit by establishing an education component to the community, since education is not the main mission for the Food Hub, this requirement would take away from the work of supporting farmers and other agricultural entrepreneurs. Cooperatives are another option as an organizational structure, but a coop, a consensus style business, is difficult to form, fund, and manage.

PROCESS

In order to incorporate in the State of Virginia, an exploratory team of three to five individuals will develop the charter and bylaws. Once those are complete, the group can then file a Form 1024 (Application for Recognition of Exemption) with the IRS. Once the application is filed, the board can expect a decision within 2-6 months. Note: This filing timeline is another advantage of 501(c)(5)s over (c)(3)s: a decision for the latter can take

18-24 months. Additionally, a (c)(5) can begin operations while awaiting the determination from the IRS.

The exploratory team will be responsible for determining the make-up of the Food Hub's board of directors as it writes the by-laws. ACDS recommends a nine to eleven member board, and it is vital that there are members representing each of the three core functions of the Food Hub. Once this board is in place, it will focus on fundraising, initial membership recruitment and the hiring of a program manager. At the same time, the board will be responsible for developing RFPs, and then contracting with specialists needed for each segment of the business, such as technology and retailing, when required. Region 2000 can continue to support the project by establishing, with a contractor, a GroupGAP and quality assurance training programs while the organizational efforts are underway.

The startup will be funded by dues and contributions, a deductible expense for most businesses. After the pilot phase, any for-profit business could be spun off as an independent business, or be established as a wholly or jointly-owned subsidiary of the original non-profit. One reason to have a subsidiary relationship is to maintain transparency for the benefit of the farmers in the Region 2000 counties, maintaining the flow of information for the betterment of the community. This will enable local growers to understand trends and apply that understanding to the management of their production and marketing efforts.

KEY PERSONNEL

The Food Hub has limited requirements for personnel during start-up beyond hiring, or contracting, a qualified program manager (PM). Critical job requirements are:

- Strategic leadership – PM will demonstrate long-term vision and leadership ability in guiding the Food Hub's through its startup phase by working with leaders in the industry and community.
- Relationship building – PM will be responsible for building the relationships necessary to establish the Food Hub ranging from farmer recruitment to sales development. The PM's ability to build and sustain such relationships will be one of the most important skills that the PM will have. It will therefore be beneficial to engage a manager with existing relationships to enhance the chance of success.
- Business development – PM has the responsibility for growing and maintaining the hub's pipeline of users, building networks in the farm and regional food communities, and implementing new ideas to enhance the Food Hub's services and products.
- Management – PM will manage and supervise relationships with farmers, buyers, contractors, service providers, board of directors, pilot project teams, and community partners. Program manager will be responsible for creating a professional working atmosphere within the food hub.
- Administration - The PM is responsible for a range of finance and administrative functions such as customer billings, accounts receivable and accounts payable,

insurance/risk management, storage administration, and coordination of distribution runs. The PM administers all food safety and regulatory protocols.

- Systems integration - The PM will need to quickly become proficient with the systems that run the hub's sales, distribution, transaction settlement, storage space, and distribution deliveries. PM will also be responsible for working with pilot project teams to identify and implement systems to enhance project offerings.
- Food Safety - PM will oversee the establishment of food safety and quality assurance programs and must have a working knowledge of sanitation systems, Hazard Analysis and Critical Control Point systems, Good Handling Practices (GHP), Good Manufacturing Practices (GMP), and Good Agricultural Practices (GAP) programs.

Initially, the PM's job will be part-time and is envisioned as a shared employee. Compensation may vary widely depending on the level of engagement of the board and the experience of the candidates.

Specific assistance to launch the various programs outlined in Section 3 will be required. It is advised that specific assistance be contracted to design the food safety program, quality assurance program, marketing, merchandising, and information systems. Some of the assistance requirements enumerated above will be provided by partner firms and agencies while others may need to be contracted through specialist firms such as Wholesome Wave and American Food Safety.

SECTION 6: STAGING AND MILESTONES

ACDS, LLC believes that the window for establishing the Food Hub as described above is short lived. Time is of the essence in capturing the advantages of retailer and institutional buyers' interest as well as the first mover advantages of establishing a GroupGAP program as a catalyzing event.

With the above in mind, ACDS strongly advises immediate action to develop the Food Safety/Quality Assurance and Regional Food Transaction System elements of this plan. The following timeline provides a rough idea of the steps necessary to complete the initial phases of the project.

- February '16
 - Form exploratory team to create 501(c)(5)
 - Identify and hire CPA and legal support to help with corporate formation
 - File 501(c)(5) membership association charter for Food Hub
 - Find support agency in which to house operations
 - Fundraise for various program activities
 - Write Rural Development Block Grant and Local Food Promotion Program Grant applications

- Write Federal-State Market Improvement Program Grant application
 - Write Wallace Foundation Proposal letter
 - Meet with local community foundations
 - Meet with state and local funders
 - Create wholesale trade team
 - Identify initial commodity list and product requirements per Appendices A & B
 - Identify local and regional transportation partnerships
 - Market Food Hub to “Mavens & Connectors”
- March and April ‘16
 - Develop GroupGAP program
 - Hire GAP professional
 - Hold GAP training
 - ID initial producer group for GroupGAP program participation
 - Conduct community meetings and individual outreach for membership and GroupGAP enrollment sales
 - Support development of membership association
 - Develop corporate by-laws
 - File IRS Form 1024
 - Retain additional professional and technical assistance as needed
 - Continue fundraising
 - Create sales platform
 - Initiate sales agreements for wholesale trade partners
 - Develop sales and order forms
 - Create Excel based program management forms
 - Identify information technology needs
 - Create marketing plan
 - Market programs to “Mavens & Connectors”
 - Develop and launch media strategy
- May ‘16
 - Form livestock producer committee
 - Adopt first stage beef and pork quality assurance programs
 - Discuss outside sales opportunities
 - Meet with protein buyers to discuss “Natural” meat Quality Assurance Program
 - Initiate trade in ground meats with institutional customers
 - Form produce farmer committee
 - Align needs of buyers and sellers
 - Identify pilot crops and program sales criteria
 - Formally launch GroupGAP phase 1 pilot
 - Train GroupGAP farms
 - Schedule initial GroupGAP inspections
 - Expand sales platform

- Evaluate transaction system technology and modifications
 - Finalize transportation options
 - Conduct membership and food safety program sales drives
 - Prepare Value Added Producer Grant application
- June – October ‘16
 - Conduct GroupGAP operations
 - Operate sales and distribution platform
 - Benchmark and track operations
 - Report to progress to board
 - Design and conduct full membership drive
 - Develop merchandising and marketing materials
 - Test merchandising materials
 - Launch initial program
 - Conduct membership and food safety program sales drives
 - Prepare Department of Housing and Community Development grant applications
- November – December ‘16
 - Evaluate meat and product sales activities and make suggestions for program amendments
 - Evaluate transportation system success
 - Expand initial product offerings as necessary
 - Identify additional technology and program needs
 - Conduct early winter food safety meetings
 - Conduct membership and food safety program sales drives
- 2017 – Update and launch full scale programs

SECTION 7: MARKETING PLAN

Marketing plans for startups are notoriously lean and dependent on high touch interaction, and as such, must include guerilla tactics to get the most out of limited budgets. The Food Hub will not be an exception to this rule. Because of this, the management team and board must be very clearly focused on the major objectives of:

1. Building membership base,
2. Generating product sales, and
3. Selling food safety and quality assurance programs, or driving service demand.

The balance of this section will focus on three objectives.

BUILD MEMBERSHIP BASE

Product and service sales cannot begin in earnest until a functioning membership association is built and the initial membership is established. This makes membership development the first and most important marketing objective.

Marketing begins with having a well-articulated plan for membership services and member benefits. Initially, these benefits will focus on the pilot programs that are purpose built to improve food safety and food quality while simultaneously building better internal and external markets for food products produced in Region 2000. This vision, as well as the particular requirements of membership should be clearly articulated in a new website as well as in print materials for use at external events.

The [Food Marketing Institute](#) provides a roadmap for the development of a topnotch membership site and should serve as a guide for web development. Critical elements of the site include information on member benefits, program descriptions, education and event calendars, member blog area, food safety programs, testimonials, contacts, member content area, and a sign-up form. The site should incorporate these basic elements at the outset, though the hub does not need to adopt the complexity or mimic the content of FMI.

Beyond the website, direct outreach by the program manager and board members will be the most important and effective means to explain the purpose and benefits of the hub as well as to solicit membership. This effort will start with the PM and board developing a list of “mavens and connectors”¹ in the food and agriculture communities then conducting personal visits with those on the list to discuss the project. The purpose will be to encourage and empower the “mavens and connectors” to begin talking about the benefits of the project in advance of the launch.

Additional effort should be undertaken to hold informational meetings and educational events related to the food hub and its intended product and service offerings. For instance, the Food Hub may choose to co-sponsor a GAP/GMP educational seminar in conjunction with a major retailer such as Wegmans and food safety educators from Virginia Tech. Similarly, small format meetings and networking events should be held in conjunction with other events such as Farm Bureau meetings.

Media outreach, including a social media strategy should be developed to coincide with launch. This would include local print and radio media as well as a strategy to launch an informational campaign on Facebook and LinkedIn to attract wholesaler and retailer interest.

The target for these activities is to launch with an initial group of 12 to 20 members and a marketing cost of less than \$6,000.

¹ Malcolm Gladwell’s tipping point model of marketing suggests that certain people in the community have an outsized influence over the acceptability of new business, products and services. These people should be engaged in the sales activity early in the process.
https://en.wikipedia.org/wiki/The_Tipping_Point

GENERATE PRODUCT SALES

Much of the product sales activity will coincide with the membership outreach and service program design. Since product sales in the food industry is a relationship based business, initial outreach efforts should focus on the primary sales targets identified during the study and augmented by additional discovery activities. High priority contacts, such as Wegmans and the DC Central Kitchen should be visited early in the process to confirm participation in pilot activities and refine product requests.

Additional efforts to expand the sales network will rely on simple and inexpensive outreach tools such as product expositions and a networked referral system. A calendar of product expositions by commodity type and region is maintained by the Virginia Department of Agriculture and Consumer Services, Marketing Division, who should be enlisted to help in the outreach effort. The referral network should tie directly into a financial reward system such as discounted Food Hub memberships or brokerage discounts.

Furthermore, a well-developed merchandising program with strong brand identity support will spur sales efforts. This is particularly true if Food Hub members make themselves available for tradeshow and in-store demonstrations. It is important that a social media strategy for direct consumer outreach play a role in this, as has been demonstrated by the [Lancaster Farm Fresh Cooperative](#).

Initially the success of this sales effort should be benchmarked by relationship-building success as measured by participation in the pilot sales program. Specific sales targets are covered in the Revenue section of the Financial Plan.

DRIVE SERVICE DEMAND

Selling GroupGAP and quality assurance services should become easier as both regulators and retailers push for broader adoption of Good Agricultural Practices, International Standards Organization, and Safe Quality Food Institute standards. Farms that are not taking proactive steps to adopt one, or more, of these standards risk being left out of the mainstream food system. Conveying this information, along with a cost effective solution for addressing it is the main marketing strategy for selling services.

As with the membership drive, adopting a “mavens and connectors” approach to spreading information in advance of a launch is advisable. This first level of outreach would be followed by direct outreach to the community through educational seminars, direct farm visits, and presentations at commodity/Farm Bureau meetings. These outreach events would be conducted by, or coordinated through the program manager and board members.

Media placements in traditional media outlets such as radio, television, and print will also be important to spread the word about GroupGAP to participants who may be just outside of Region 2000. Because this service will be relatively new and innovative in the

marketplace, it should have broad appeal particularly with young and beginning farmers. Because of this, a social media strategy may also be advisable.

Sales targets are presented in the Financial Plan and are estimated based on service sales within Region 2000. Based on the popularity and availability of GroupGAP and quality assurance programming outside of Region 2000, it may be advisable to review the service area near the time of launch. Similarly, service pricing should be reviewed at the time the program is developed and preparing to launch. Current pricing is offered as a marketing placeholder only.

SECTION 8: FINANCIAL PLAN

Following is an overview of the project's proposed financial structure based on the business activities described. While reviewing this section, it is important to recognize that all financial data are estimates of revenues and expenses based on contextual information collected during the research phase of the project. It is also important to understand that all of the business activities outlined are inherently risky and that undertaking any of these activities may not yield the results anticipated.

The Food Hub financials are designed to fit the tax status of the organizational structure chosen. As a 501(c)(5) entity under the Internal Revenue Code, several issues are important to consider. First, the business must operate for the benefit of agriculture as its primary mission. Because of its not-for-profit status, neither the business entity itself, nor its members, derive direct benefit through profit repatriation. Revenues in excess of operations must be used to advance the association's mission. The business is also restricted in its ability to generate tax shelters.

CASH FLOW ANALYSIS

The financial plan presented here is based on a simple cash flow model that tracks the cost and revenue performance of the business units. ACDS chose this simplified approach because there are few complex tax issues associated with membership associations, and it is not envisioned that the Food Hub will need to own significant assets, beyond intellectual property, in the near future.

This cash flow analysis demonstrates that the association can expect to break even on its operations by its third year. Developing a strong membership base comprised of both farmers and product buyers is essential to developing the core business. This group is more than just founders and the initial source of development cash flow. They also form the core participants in the pilot project, and all programs that flow from it will necessarily be responsive to their needs as representatives of the economic functions in the food system.

Long-term operational success is predicated on more than membership sales. It is essential that the pilot projects generate robust sales through the transaction system and successfully drive producer acceptance of the GroupGAP program. These two programs, over time, form the core of Food Hub revenue and the product base for future expansion. Because of this, proper staging and development of these elements are critical to make the program a success.

The cash flow analysis also points out the need for strong public support through grants to establish the Food Hub. It is unlikely that an association can form and boot strap start-up funding using solely private sources. Early grant support is therefore imperative.

There is little chance to profit from the activities described in the business concept, yet each one plays a significant role in advancing the industry. By advancing the program goals, the Food Hub will open doors for higher levels of private and public sector involvement in an

expanded business model down the road with evidence of success happening at the bottom line of farmers, retailers, and wholesalers.

Region 2000 Food Hub - Cash Flow Analysis					
Operating Revenue	2016	2017	2018	2019	2020
Membership Fees	\$ 6,000.00	\$ 20,000.00	\$ 30,000.00	\$ 32,500.00	\$ 32,500.00
GroupGAP Enrollment	\$ 3,600.00	\$ 13,800.00	\$ 21,600.00	\$ 27,000.00	\$ 28,500.00
Quality Assurance Program Fees	\$ 1,600.00	\$ 1,760.00	\$ 1,936.00	\$ 2,129.60	\$ 2,342.56
E-commerce Brokerage Revenue	\$ 24,072.50	\$ 54,147.50	\$ 98,785.00	\$131,281.88	\$153,626.16
Audit Fees	\$ 2,484.00	\$ 4,968.00	\$ 5,796.00	\$ 6,624.00	\$ 6,624.00
Total Revenue	\$ 35,272.50	\$ 89,707.50	\$ 152,321.00	\$192,911.48	\$216,968.72
Cost of Goods Sold	\$ 4,267.97	\$ 10,854.61	\$ 18,430.84	\$ 23,342.29	\$ 26,253.21
Total Revenue	\$ 31,004.53	\$ 78,852.89	\$ 133,890.16	\$169,569.19	\$190,715.50
Operating Expenses	2016	2017	2018	2019	2020
Sales and Marketing	\$ 14,000.00	\$ 10,000.00	\$ 12,500.00	\$ 15,625.00	\$ 19,531.25
Payroll and payroll taxes	\$ 25,000.00	\$ 35,000.00	\$ 50,000.00	\$ 55,000.00	\$ 65,000.00
Insurance	\$ 6,000.00	\$ 7,000.00	\$ 9,000.00	\$ 9,800.00	\$ 9,800.00
Food Safety	\$ 15,000.00	\$ 8,000.00	\$ 16,000.00	\$ 17,000.00	\$ 17,000.00
IT & telecom	\$ 18,000.00	\$ 35,000.00	\$ 18,000.00	\$ 18,000.00	\$ 18,000.00
Contractors	\$ 35,000.00	\$ 8,000.00	\$ 8,000.00	\$ 8,000.00	\$ 8,000.00
Rent and related	\$ 2,400.00	\$ 2,400.00	\$ 4,800.00	\$ 4,800.00	\$ 4,800.00
Utilities	\$ 900.00	\$ 900.00	\$ 2,200.00	\$ 2,200.00	\$ 2,200.00
Professional Fees	\$ 6,000.00	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00
Other	\$ 10,000.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00
Total Operating Expenses	\$ 132,300.00	\$110,800.00	\$ 125,000.00	\$134,925.00	\$148,831.25
Operating Income	-\$ 101,295.47	-\$ 31,947.11	\$ 8,890.16	\$ 34,644.19	\$ 41,884.25
Interest	\$ -	\$ -	\$ -	\$ -	\$ -
Operating Income before other items	-\$ 101,295.47	-\$ 31,947.11	\$ 8,890.16	\$ 34,644.19	\$ 41,884.25
Other income (grants)	\$ 102,000.00	\$ 38,000.00	\$ -	\$ -	\$ -
Other expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Earnings	\$ 704.53	\$ 6,052.89	\$ 8,890.16	\$ 34,644.19	\$ 41,884.25
Cummulative Cash Balance	\$ 704.53	\$ 6,757.42	\$ 15,647.58	\$ 50,291.77	\$ 92,176.02

OPERATING REVENUE ANALYSIS

The Food Hub will produce fee-based revenue from numerous sources. First and foremost, the IRS requires that a 501(c)(5) have a dues paying membership structure. ACDS strongly advises that the membership be comprised of a wide range of businesses that are involved in the agriculture and food industries. At a minimum, membership will be solicited from businesses in retail, distribution, manufacturing, and production agriculture. As noted in the table below, members will be expected to pay a \$500 annual membership fee.

Membership fees will be offset by benefits described in Table D.

Membership Revenue		2016	2017	2018	2019	2020
	Fee	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500
	Members	12	40	60	65	65
	Revenue	\$ 6,000	\$ 20,000	\$ 30,000	\$ 32,500	\$ 32,500

Additional revenue will be generated through the fees associated with participation and management of food safety and quality assurance programs. Revenue will be derived through two primary sources. The first is enrollment fees that are scaled to provide a member benefit and cover general audit fees, which are provided on a cost recovery basis.

GAP Enrollment		2016	2017	2018	2019	2020
	Member fee	\$ 300	\$ 300	\$ 300	\$ 300	\$ 300
	Nonmember fee	\$ 600	\$ 600	\$ 600	\$ 600	\$ 600
	Members	6	30	48	50	55
	Nonmembers	3	8	12	20	20
	Member revenue	\$ 1,800.0	\$ 9,000.0	\$ 14,400.0	\$ 15,000.0	\$ 16,500.0
	Nonmember revenue	\$ 1,800.0	\$ 4,800.0	\$ 7,200.0	\$ 12,000.0	\$ 12,000.0
	Enrollment revenue	\$ 3,600.0	\$ 13,800.0	\$ 21,600.0	\$ 27,000.0	\$ 28,500.0
	Annual Audits	3	6	7	8	8
	Audit fee - Est. per audit	\$ 828	\$ 828	\$ 828	\$ 828	\$ 828
	Audit revenue	\$ 2,484	\$ 4,968	\$ 5,796	\$ 6,624	\$ 6,624

Quality Assurance Programs		2016	2017	2018	2019	2020
	Member fee	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40
	Nonmember fee	\$ 80	\$ 80	\$ 80	\$ 80	\$ 80
	Members	20	22	24	27	29
	Nonmembers	10	11	12	13	15
	Member Revenue	\$ 800	\$ 880	\$ 968	\$ 1,065	\$ 1,171
	Nonmember Revenue	\$ 800	\$ 880	\$ 968	\$ 1,065	\$ 1,171
	Total revenue	\$ 1,600	\$ 1,760	\$ 1,936	\$ 2,130	\$ 2,343

The single largest source of expected income is derived from brokerage fees assessed on transactions intermediated by the electronic sales and distribution platform. The system will assess different brokerage rates to members and nonmembers.

E-Commerce Trade		2016	2017	2018	2019	2020
Member sales						
	Produce	\$ 69,000	\$ 103,500	\$ 155,250	\$ 209,588	\$ 282,943
	Meats	\$ 260,000	\$ 787,000	\$ 1,574,000	\$ 2,124,900	\$ 2,443,635
	Other	\$ 5,250	\$ 5,250	\$ 5,250	\$ 5,250	\$ 5,250
	Total Sales	\$ 334,250	\$ 895,750	\$ 1,734,500	\$ 2,339,738	\$ 2,731,828
	Commission Rate	5%	5%	5%	5%	5%
	Commission Revenue	\$ 16,713	\$ 44,788	\$ 86,725	\$ 116,987	\$ 136,591
Nonmember Sales						
	Produce	\$ 20,000	\$ 30,000	\$ 45,000	\$ 49,500	\$ 54,450
	Meats	\$ 60,000	\$ 75,000	\$ 93,750	\$ 117,188	\$ 146,484
	Other	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000
	Total Sales	\$ 92,000	\$ 117,000	\$ 150,750	\$ 178,688	\$ 212,934
	Commission Rate	8%	8%	8%	8%	8%
	Commission Revenue	\$ 7,360	\$ 9,360	\$ 12,060	\$ 14,295	\$ 17,035
	Total Commission Revenue	\$ 24,073	\$ 54,148	\$ 98,785	\$ 131,282	\$ 153,626

It is important to note that sales estimates are based on current demand estimates provided by potential system users guided by 2014 and 2015 buying patterns. Meat program sales are dominated by sales of 90:10 and 80:20 ground beef products as well as modest sales demand for “Natural” beef and “Natural” pork products. Institutions within and outside of Region 2000 counties are the primary drivers of demand with the largest single opportunity provided by the DC Central Kitchen, a provider of 11,000 meals per day. Other important potential buyers are Centra, local school systems, Wegmans, and various small retailers. Food safety and quality assurance programs are essential to establishing and maintaining all of these sales relationships.

Produce demand is a bit more dispersed across buyers and commodities. The demand for produce, however, largely comes from buying organizations based outside the Region 2000 area with the largest potential buyers being Wegmans, Whole Foods, Coastal Sunbelt, Ahold (Martins/Ukrops), DC Central Kitchen, and Conner’s Produce. For all of these buyers, GAP is a requirement for consideration as a vendor and GroupGAP will be considered compliant.

OPERATING COSTS ANALYSIS

The costs centers in the Food Hub are straightforward. Early cash expenditures and investments must be made to establish the entity and fit it out, after which, the Food Hub’s cost structure will settle into a long-term pattern that is consistent with similar membership associations. Costs are discussed below in more detail.

The largest expense categories are allocated to human capital and are found in the contractor, food safety, and professional services, and payroll categories. No matter how these funds get allocated, it is essential that the Food Hub engage qualified professional and technical expertise to establish its program areas. Early program development requires solid management and organizational development skills, as defined in Section 5, but it is important to highlight that these skills do not have to be hired during start-up. These skills may be available as a job share with an existing mission-based company such as Region 2000 or the Lynchburg Community Market. Start-up professional fees are associated with filing the necessary organizational documents to properly form a 501(c)(5) entity including the completion of the IRS Form 1024.

Sales and marketing expenses are driven by two primary factors. First is the expense related to sales calls and conferences including local or regional travel plus meals and entertainment associated with sales calls on new and existing clients. This expense is expected to range from \$6,000 to \$8,000. The second largest component is the development of online and printed merchandising and marketing materials as described previously.

With much of the businesses activity being web based, it is essential to have a solid IT budget. This budget includes a value-engineered website with a good, customer centered user experience and solid backend distribution and marketing capability. ACDS expects that it will take the 2016 and 2017 operating years to refine this element of the business.

Depending on the system requirements, as defined by the pilot programs, expansion of this budget may be necessary.

Rent and utilities are minimal expense items for the Food Hub given the fact that most, if not all, of its operations can be carried out in 600 square feet or less of Class B or lower office space with a rent and utility cost of \$5.83 per square foot. Other space as needed for pallet storage, etc. is incorporate in Cost of Goods Sold.

SOURCE AND USES

The following Sources and Uses table outlines a funding scenario for generating the capital resources necessary to start operations at the Food Hub. As noted previously, start-up is predicated on raising at least \$100,000 in grant support in the year one and \$40,000 in year two.

The USDA is expected to be largest grant supporter of the project through programs such as Rural Business Development Grants (RBDG), Federal-State Market Improvement Program Grants (FSMIP), Farm to School Grants (F2S), and Local Food Promotion Program Grants (LFPP). Other important funding sources will come from the State of Virginia through the Tobacco Region Revitalization Commission, the Virginia Department of Agriculture and Consumer Services (Agriculture and Forestry Industries Development Grants), the Department of Housing and Community Development (Building Collaborative Communities & Building Entrepreneurial Economies) with support from the Governor’s Office. State and local funds are critical elements of match for the federal grant programs enumerated above.

Sources	\$ 146,000
Grants	\$ 140,000
Federal	\$ 70,000
State & Local	\$ 55,000
Philanthropic	\$ 15,000
Initial Membership Dues	\$ 6,000
Uses	\$ 146,000
GroupGAP Design	\$ 30,000
FQA Program Design	\$ 8,000
Website	\$ 12,000
e-Commerce Program	\$ 34,000
Corporate Organization	\$ 10,000
Furnishings and Equipment	\$ 10,000
Brand Development	\$ 42,000

Philanthropic funds are expected to support at least a portion of the start-up activities envisioned here. The fact that the Food Hub is not envisioned as a Charitable Foundation organized under Section 501(c)(3) of the IRC, means that receiving direct donations from philanthropies will require a pass through funder such as a community association or Region 2000. The most active funders in the Food Hub area are DC based foundations in the DC Food Funders Network, formerly the Convergence Partnership. Outreach to these funders will require engagement with funding consultants such as Arabella Advisors.

SECTION 9: BENCHMARKS

Setting benchmarks enables the Food Hub to assess the success of its programs. The suggested benchmarks are based on the goals and objective set out in Section 1 of this document.

- Achieve average positive net proprietor income per year by 2022 and increase to at least \$5,000 by 2027
- Meet or exceed sales targets for the ecommerce sales system as projected in the plan.
- Meet or exceed membership goals projected in the plan, plus
 - Retain 85% of existing members annually
 - Maintain diverse member types among growers, buyers, distributors and retailers
 - Establish and maintain membership in food safety and quality assurance programs
- Increase the percentage of finished beef animals as a share of livestock activity
- Increase the absolute numbers of hogs produced
- Increase acreage in fruit and vegetable production

APPENDIX A: PROPOSED PRODUCE QUALITY STANDARDS

Proposed
Vegetable Standards

Item: Artichokes

Artichokes which meet the following requirements properly trimmed, fairly well formed, uniformed size, not overdeveloped and not badly spread, fairly compact, free from decay and disease of any kind.

Standard Sizing

The size of Artichokes may be specified in terms of count, minimum diameter and length. Eggplants packed as U.S. U.S. No. 1 grade shall be reasonably uniform in size with a minimum of 6 inches in length for long stem with a minimum of 4 ½ inches in diameter for all artichokes.

Quality Expectation and Definitions

Properly trimmed

"Properly trimmed" means that the stem is smoothly cut and not excessively long.

Fairly well formed

"Fairly well formed" means that the artichoke is not excessively long and pointed.

Fairly compact

"Fairly compact", means that the artichoke is reasonably firm and not more than slightly spread.

Slightly spread

"Slightly spread" means the outer scales may be slightly opened, but the inner scales at the tip of the artichoke must be closely folded into the bud.

Not Overdeveloped

"Overdeveloped" means that the artichoke has a brownish color; that the scales are tough, leathery, and stringy; and, that the flower in the center of the bud has turned dark pink or purple and become fuzzy.

Not Damaged

"Damage" means any defect, or any combination of defects, which materially detracts from the appearance, or the edible or marketing quality of the artichoke.

Proposed
Vegetable Standards

Item: Asparagus

Consists of stalks of asparagus which are fresh, well trimmed, and fairly straight; which are free from decay and free from damage caused by spreading or broken tips, dirt, disease, insects, or other means.

Standard Sizing

Standard Bunch will consist of no less than 15 stalks and no more than 50 stalks. Standard lengths will range between 8-14 inches in length. Standard diameters apply per the USDA grading.

Small..... 5/16 inch to less than 8/16 inch
Medium..... 8/16 inch to less than 11/16 inch
Large..... 11/16 inch to less than 14/16 inch

Quality Expectation and Definitions

Amount of color

When the asparagus in a lot has less or more color than is specified and described as 3/4 stalk length green, ¼ or less stalk length purple

Fresh

"Fresh" means that the stalk is not limp or flabby.

Not Damaged

"Damage" means any defect, or any combination of defects, which materially detracts from the appearance, or the edible or marketing quality of the stalk.

Diameter

"Diameter" means the greatest thickness of the stalk measured at a point approximately 1 inch from the butt.

Fairly well trimmed

"Fairly well trimmed" means that at least one-third of the butt of the stalk is smoothly trimmed in a plane approximately parallel to the bottom of the container and that the butt is not badly stringy or frayed.

Not badly misshapen

"Badly misshapen" means that the stalk is so badly flattened, crooked or otherwise so badly deformed that its appearance is seriously affected.

Proposed

Vegetable Standards

Item: Beans, Lima

Consists of pods of lima beans of similar varietal characteristics which are fairly well filled and not excessively small, not badly misshapen, and which are fresh, and not over mature, free from soft decay, sprouted beans, worm holes, and from damage caused by dirt, russetting, scars, leaves or other foreign matter, freezing, hail, disease, insects, or mechanical or other means.

Standard Sizing

Size is specified in terms of length and diameter and unless otherwise specified meets the minimum requirements in 3 inches in length and $\frac{3}{4}$ inches in diameter.

Quality Expectation and Definitions

Similar varietal characteristics

"Similar varietal characteristics" means that the pods of lima beans in any container are of the same general type.

Fairly well filled and not excessively small

"Fairly well filled and not excessively small" means that more than one-half of each pod shall be filled with fairly well and/or well developed beans but that no pod may have less than two fairly well and/or well developed beans. Pods that are just half filled with at least fairly well developed beans but have enough additional beans a little smaller than those considered fairly well developed so as to make the equivalent in volume to the beans in a pod more than half filled with at least fairly well developed beans shall be considered as fairly well filled.

Not badly misshapen

"Badly misshapen" means that the pods are badly constricted, crooked, curled, twisted, or otherwise badly malformed.

Fresh

"Fresh" means that the pods are not more than slightly wilted and flabby.

Not Over mature

"Over mature" means that the beans have developed beyond that stage of growth at which they are desirable for use as fresh beans. Pods that are becoming yellow and dry or beans that do not show a tinge of green color on the cotyledons after removing the outer skin, or have become hard, starchy and brittle shall be considered as over mature.

Not Damaged

"Damage" means any defect, or any combination of defects, which materially detracts from the appearance, or the edible or marketing quality. Dirt or russetting which materially detracts from the appearance of the lot shall be considered as damage.

Proposed

Vegetable Standards

Item: Beans, Snap

Consists of beans of similar varietal characteristics which are of reasonable and fairly uniform size, well formed, bright, clean, fresh, young and tender, firm, and which are free from soft rot and free from damage caused by leaves, leaf stems, other foreign matter, hail, disease, insects or mechanical or other means.

These standards can be applied to all beans used in their entirety as opposed to shelled beans, and includes types such as snap, pole, and wax beans. These standards do not apply to types such as fava, Lima, pinto or calico beans.

Standard Sizing

Size is specified in terms of length and unless otherwise specified meets the minimum requirements in 3 inches in length.

Quality Expectation and Definitions

Similar varietal characteristics

"Similar varietal characteristics" means that the beans are of the same color and general type. For example, wax and green beans, or Snap and Pole beans may not be mixed.

Reasonable size

"Reasonable size" means that the pods are not spindly or excessively short for the variety and have not been prematurely picked.

Well formed

"Well formed" means that the pods have the normal typical shape for the variety.

Firm

"Firm" means that the pods are not wilted or flabby.

Not Damaged

"Damage" means any defect, or any combination of defects, which materially detracts from the appearance, or the edible or marketing quality of the snap bean. Pods having spots due to Blight or Anthracnose, and similar spots caused by other diseases, shall be considered as damaged.

Broken beans shall be considered as damage when:

- (1) There is one break present in the thick portion of the bean or one break at each end in the thin portion of the bean;
- (2) Any break that is materially affected by dirt or discoloration;
- (3) Any break that is ragged and materially detracts from the appearance; or
- (4) Unless otherwise specified, the remaining portion of the bean is less than 2 inches in length (3-1/2 inches for pole type beans).

Proposed
Vegetable Standards

Item: Bunched beets

"Bunched beets" means beets which are tied in bunches. The tops shall be full length or removed to not less than 6 inches.

Standard Bunching

Standard bunches of beets shall be fairly uniform in size and each bunch of beets shall weigh not less than 1 pound and contain at least 3 beets.

Quality Expectation and Definitions

Well trimmed

"Well trimmed" means that unattractive secondary rootlets have been removed and that any objectionably long or coarse tail-like part of the root has been cut off.

Firm

"Firm" means that the beet root is not soft, flabby or shriveled.

Fairly smooth

"Fairly smooth" means that the root is not rough or ridged to the extent that the appearance is materially affected. Very slight roughness over the crown or very slight pitting caused by the shedding of dead leaves shall not be considered as materially affecting the appearance.

Fairly well shaped

"Fairly well shaped" means that the root is not misshapen to the extent that the appearance is materially affected.

Fairly clean

"Fairly clean" means that the individual root is reasonably free from dirt, stain or other foreign matter, and that the general appearance of the roots in the container is not more than slightly affected.

Not Damaged

"Damage" means any defect which materially affects the appearance, or the edible or shipping quality of the individual beet root, or the general appearance of the beet roots in the container, or causes a loss of more than 5 percent, by weight, in the ordinary preparation for use, or which materially affects the appearance or shipping quality of the tops. Any one of the following defects, or any combination of defects, the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as damage:

- (a) Growth cracks when not shallow and not smooth or when the appearance is materially affected; and,
- (b) Discoloration when yellowing or other discoloration of the tops materially affects the appearance of the bunch. The appearance of bunches with tops having slight discoloration such as yellowing, browning, or other abnormal color affecting a few leaves shall not be considered materially affected.

Fresh

"Fresh" means that the tops are not badly wilted

Proposed

Vegetable Standards

Item: Broccoli

The broccoli shall be free from decay, and from damage caused by over maturity, discoloration of bud clusters or leaves, freezing, wilting, dirt or other foreign material, disease, insects, mechanical or other means. The bud clusters shall be generally compact. Bunched broccoli shall be neatly and fairly evenly cut off at the base, and closely trimmed unless otherwise specified as “well trimmed.”

Standard Sizing

Bunched Broccoli -The diameter of each stalk shall be not less than 2-1/2 inches.

Unless otherwise specified, the length of each stalk shall be not less than 6 inches or more than 8-1/2 inches.

Broccoli Crowns - The diameter of each crown shall be not less than 2-1/2 inches or more than 5 inches.

Unless otherwise specified, the length of each stalk shall be not less than 2-1/2 inches or more than 5 inches.

Broccoli Florets - The diameter of each floret shall be not less than 3/4 inch or more than 3 inches. Unless otherwise specified, the length of each stem shall not be less than 1 inch or more than 3-1/2 inches.

Quality Expectation and Definitions

Fairly uniform

“Fairly uniform” means: (a) **bunched broccoli**: Bunches are considered fairly uniform if the diameter of the bunch within the container does not vary more than three inches.

(b) **For broccoli crowns**: Crowns are considered to be fairly uniform if the diameter of the crowns within the container does not vary more than three inches.

(c) **For broccoli florets**: Florets are considered fairly uniform if the diameter of the florets within the sample does not vary more than 1-1/2 inches.

Stalk

“Stalk” means a portion of the broccoli plant including the stem, bud clusters and leaves. Individual stalks may be designated as “heads” or “shoots” as follows:

(a) “Head” means a stalk of broccoli having a cluster of closely associated buds which is 2-1/4 inches or larger in diameter.

(b) “Shoot” means a stalk of broccoli having bud clusters which fail to meet the requirements for a head.

Bunch

“Bunch” means stalks bound together to form a unit. A single stalk may be considered a bunch if it is approximately as large as other bunches in the lot.

Compact

“Compact” means that the individual buds in the bud cluster are generally small and tightly crowded together and that the bud clusters on the stalk are generally close together and feels fairly firm and moderately resistant to pressure.

Not Damaged

“Damage” means any specific defect described in this section; or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which materially detracts from the appearance, or the edible or marketing quality of the broccoli. The following specific defects shall be considered as damage:

(a) Over maturity, when the appearance of the broccoli is materially affected by the presence of open flower buds, or buds which are enlarged and on the verge of opening.

(b) Discoloration of bud clusters, when the appearance of the broccoli is materially affected by buds which have a noticeably yellowish, brownish, or reddish cast in contrast to the desirable good green color. A bluish or purplish cast over the green is often characteristic of good broccoli and shall not be considered as damage.

(c) Discoloration of leaves, when the appearance of the broccoli is materially affected by discolored leaves or parts of leaves.

Proposed
Vegetable Standards

Item: Cabbage

Consist of heads of cabbage of (Green, Red, Napa), which are of reasonable solidity, and are not withered, puffy, or burst and which are free from soft rot, seed stems, and from damage caused by discoloration, freezing, disease, insects or mechanical or other means. Stems shall be cut so that they do not extend more than one-half inch beyond the point of attachment of the outermost leaves.

Standard Sizing

The minimum size or minimum and maximum sizes may be specified in connection with the grades as "U.S. No. 1, 1 pound min.," or "U.S. No. 1, 2 to 4 pounds," or any lot may be classified as Small, Medium, Large, Small to Medium, or Medium to Large.

Quality Expectation and Definitions

Reasonable solidity

"Reasonable solidity" means fairly firm for pointed type cabbage and southern Domestic type cabbage. Northern Domestic type cabbage and Danish or Hollander type cabbage shall be firm. "Reasonable solidity" as applied to Savoy cabbage means not soft or puffy; Savoy type cabbage is characteristically loosely formed and rather light in weight.

Not Puffy

"Puffy" means that the heads are very light in weight in comparison to size, or have excessive air spaces in the central portion. They normally feel firm at time of harvesting but often soften quickly. They are known as "Balloon Heads" in certain sections.

No Seed stems

"Seed stems" means those heads which have seed stalks showing or in which the formation of seed stalks has plainly begun.

Not Damaged

"Damage" means any injury or defect which materially affects the appearance, or the edible or shipping quality. Worm injury on the outer head leaves or wrapper leaves which materially affects the appearance of the head or worm holes which extend deeply into the compact portion of the head shall be considered as damage.

Well trimmed

"Well trimmed" means that the head shall not have more than four wrapper leaves.

Fairly well trimmed

"Fairly well" trimmed means that the head shall not have more than seven wrapper leaves.

Wrapper leaves

"Wrapper leaves" means leaves which do not enfold the head fairly tightly more than two-thirds the distance from the base to the top.

Proposed

Vegetable Standards

Item: Carrots

Consists of carrots of similar varietal characteristics the roots of which are firm, fairly clean, fairly well colored, fairly smooth, well formed, and which are free from soft rot, and free from damage caused by freezing, growth cracks, sunburn, pithiness, woodiness, internal discoloration, oil spray, dry rot, other disease, insects or mechanical or other means. Bunches shall have tops which are fresh and free from decay and free from damage caused by freezing, seed stems, yellowing or other discoloration, disease, insects

Standard Sizing

Unless otherwise specified, the bunches shall have full tops and the length of tops shall be not more than 12 inches and the root shall be between 4 and 12 inches in length and each carrot shall be not less than three-fourths inch of diameter. The standard bunch shall consist of 4 or more carrots.

Quality Expectation and Definitions

Similar varietal characteristics

"Similar varietal characteristics" means that the carrots in any lot are of the same general type. For example, carrots with a short, but blunt growth, like the Oxheart variety, shall not be mixed with long or half-long carrots, like the Emperor or Danvers varieties.

Firm/Fresh

"Firm" means that the carrot is not soft, flabby, or shriveled. "Fresh" means that the tops are not badly wilted.

Fairly clean

"Fairly clean" means that the individual carrot is reasonably free from dirt stain or other foreign matter and that the general appearance of the carrots in the lot is not more than slightly affected.

Fairly well colored

"Fairly well colored" means that the carrot has an orange, orange red, or orange scarlet color, but not a pale orange or distinct yellow color.

Fairly smooth

"Fairly smooth" means that the carrot is not rough, ridged, or covered with secondary rootlets to the extent that the appearance is materially affected.

Well formed

"Well formed" means that the carrot is not forked, or misshapen to the extent that the appearance is more than slightly affected.

Not Damaged

"Damage" means any defect which materially affects the appearance, or the edible or shipping quality of the individual carrot root, or the general appearance of the carrot roots in the container, or which materially affects the appearance or shipping quality of the tops not yellowing or other discoloration or injury to the tops when the appearance of the bunch is materially affected. Leaflets shall not be considered materially affected if the tops as a whole show a predominantly normal green color.

Proposed
Vegetable Standards

Item: Cauliflower

Consists of heads of cauliflower which meet the following requirements: Basic requirements for curds: Clean; Compact; a Basic requirement for jacket leaves; Fresh; closely trimmed, unless otherwise specified; fairly clean. Free from: Soft or wet decay. Free from damage caused by: Bruising; Cuts; Discoloration; Enlarged bracts; Fuzziness; Hollow stem; Insects; Mold; Richness; Wilting; and Other means. Free from serious damage by any cause.

Standard Color and Sizing

Color- white, creamy white, or cream

Size - not less than 4 inches in diameter.

Quality Expectation and Definitions

Clean

"Clean" means that the curd is practically free from dirt or other foreign matter.

Compact

"Compact" means that the flower clusters are closely united and the curd is solid.

Diameter

"Diameter" means the greatest dimension measured in a straight line which would pass through the center of the curd.

Fresh

"Fresh" means that the jacket leaves are of normal color and are not wilted.

Closely trimmed

"Closely trimmed" means that the butts are smoothly trimmed and jacket leaves do not exceed the number and length necessary for protection against bruising, and do not extend above the crown of the curd. No jacket leaves are required on heads which are individually wrapped, or packed with cushions, partitions or other protective means.

Curd

"Curd" means the edible portion of the head exclusive of the butt and any attached jacket leaves.

Soft or wet decay

"Soft or wet decay" means any soft or mushy breakdown of the curd, butt, or leaves.

Serious damage

"Serious damage" means any specific defect described in this section, any other defect, or any combination of defects, which seriously detracts from the appearance, or the edible or marketing quality of the cauliflower. The following specific defects shall be considered as serious damage:

- (a) Insects when the curd is more than slightly infested or the jacket leaves badly infested with aphids or other insects, or when insect feeding injury seriously detracts from the appearance of the head;
- (b) Soft or wet decay affecting any portion of the head.

Proposed
Vegetable Standards

Item: Corn, Sweet

Consists of ears of sweet corn which meet the following requirements: Similar varietal characteristics; Well trimmed; Well developed Free From; Decay. Free From Damage Caused By: Discoloration; Birds; Worms. Cobs shall be fairly well filled with plump and milky kernels and fairly well covered with fresh husks. Each ear may be clipped, but each clipped ear shall be properly clipped.

Standard Sizing

Unless otherwise specified, the length of each cob, clipped or unclipped, shall be not less than 5 inches

Quality Expectation and Definitions

Similar varietal characteristics

“Similar Varietal characteristics” means that the ears in any package have similar kernel color and character of growth. Ears of field corn and sweet corn, or ears having white color kernels, yellow color kernels and mixed color kernels of corn, shall not be mixed.

Well trimmed

“Well trimmed” means that the ears are practically free from loose husks and that the shank shall be not more than 6 inches in length and not extend more than one inch beyond the point of attachment of the outside husk.

Well developed

“Well developed” means that the ears are fairly straight and are not stunted. Nubbins are not well developed ears.

No Insect or worm injury

“Insect or Worm injury” means that insect or worm frass is present, or there is visible evidence of insect or worm injury.

Injury

“Injury” means any defect which more than slightly affects the appearance, or the edible or shipping quality of the ear. Any one of the following defects, or any combination of defects, the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as injury:

- (1) Rust when the aggregate area on the husk exceeds one square inch, or when the rust extends deeper than 2 layers of husks; and
- (2) Discoloration caused by frost or spray burn, or similar types of discoloration when affecting an aggregate area of more than 3 square inches on the husk, or when exceeding an aggregate area of 25 percent of the surface of all blades.

Fairly well filled

“Fairly Well Filled” means that the rows of kernels show fairly uniform development, and that the appearance and quality of the edible portion of the ear are not materially affected by poorly developed rows.

-When the ear has not been clipped, not more than one-fourth of the length of the cob may have poorly developed or missing kernels at the tip.

-When the ear has been clipped, it shall have practically no poorly developed kernels at the tip of the cob. Missing or poorly developed kernels on other parts of the ear shall not aggregate more than one square inch on a cob 6 inches in length and a proportionally greater area shall be permitted on a longer cob and a proportionally lesser area on a shorter cob.

Plump and milky

“Plump and Milky” means that the kernels are well developed and the contents have a milky, creamy, or clear jelly-like consistency.

Proposed
Vegetable Standards

Item: Cucumbers

Consists of cucumbers which are moderately colored, not badly deformed, not overgrown, and which are fresh, firm, free from decay and free from damage caused by freezing, sunscald, cuts and from serious damage caused by scars, yellowing, sunburn, dirt or other foreign material, mosaic or other disease, insects, bruises, mechanical or other means.

Standard Sizing

Size - Unless otherwise specified, the maximum diameter of each cucumber shall be not more than 2-3/8 inches and the length of each cucumber shall be not less than 5 inches.

Quality Expectation and Definitions

Well colored

"Well colored" means that not less than three-fourths of the surface of the cucumber is of a medium green or darker color, and that at least a light green color extends to the blossom end on one side of the cucumber.

Well formed

"Well formed" means that the cucumber is practically straight and not more than very slightly constricted or more than moderately tapered or pointed.

Not Overgrown

"Overgrown" means that the cucumber has developed beyond the best stage for slicing. It usually yields to slight pressure of the thumb. The seeds may be tough and fibrous, and the pulp in the seed cavity is usually watery or jelly-like. In more advanced cases, pithy streaks may be found in the flesh of the cucumber.

No Injury caused by scars

"Injury caused by scars" means scars which aggregate more than the area of a circle three-eighths inch in diameter on a cucumber 6 inches in length, or correspondingly greater areas of scars on larger cucumbers.

Not Damaged

"Damage", unless otherwise specifically defined in this section, means any defect which materially affects the appearance, or the edible or shipping quality of the cucumber. Any one of the following defects, or any combination of defects the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as damage

- Scars when aggregating more than the area of a circle five-eighths inch in diameter on a cucumber 6 inches in length, or correspondingly smaller or greater areas of scars on smaller or larger cucumbers, respectively
- Cuts which are fresh and more than slight
- Bruises when materially affecting the appearance of the cucumber, or when sack imprints affect an aggregate area greater than that of a circle 2 1/4 inches in diameter.

Proposed
Vegetable Standards

Item: Eggplant

Consists of eggplants of similar varietal characteristics, which are well colored, firm, clean, well shaped, and which are free from decay and worm holes and free from injury caused by scars, freezing, disease, insects, or mechanical or other means.

Standard Sizing

The size of eggplants may be specified in terms of count, minimum diameter and length. Eggplants packed as U.S. Fancy or U.S. No. 1 grade shall be reasonably uniform in size with a minimum of 6 inches in length and 3 ½ inches in diameter.

Quality Expectation and Definitions

Similar varietal characteristics

"Similar varietal characteristics" means that the eggplants in any lot are similar in type, color, and character of growth.

Well colored

"Well colored" means that the eggplant has a uniform good color characteristic for the variety over practically the entire surface.

Firm

"Firm" means that the eggplant is not soft, flabby or shriveled.

Clean

"Clean" means that the eggplant is practically free from dirt or other foreign matter.

Well shaped

"Well shaped" means that the eggplant has the normal shape characteristic of the variety, except that the shape may be slightly irregular, provided the appearance of the eggplant is not more than slightly affected.

Injury

"Injury" means any defect which more than slightly affects the appearance, or the edible or shipping quality of the eggplant. The following defect, or any combination of defects, the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as injury:

(a) Scars when they are slightly rough or when they are fairly smooth and more than slightly affect the appearance, shape or color of the eggplant.

Not Damaged

"Damage" means any defect which materially affects the appearance, or the edible or shipping quality of the eggplant. The following defect, or any combination of defects, the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as damage:

(a) Scars when they are rough or materially cracked, or when they materially affect the appearance, shape or color of the eggplant.

Proposed
Vegetable Standards

Item: Greens, Mustard, Turnip, Kale, Beet, Collard

These standards are applicable to either Mustard greens, Kale, Beet greens, Collard greens or Turnip greens consisting of either plants (crown or root attached), or cut leaves but they shall not be applicable to mixtures of plants and cut leaves or mixtures of mustard greens and turnip greens in the same container.

Consists of mustard greens or turnip greens of similar varietal characteristics which are fresh, fairly tender, fairly clean, and which are free from decay and free from damage caused by seed stems, discoloration, freezing, foreign material, disease, insects or mechanical or other means.

Specifications for roots

In the case of turnip greens with roots attached, the roots shall be firm and free from damage by any cause and unless otherwise specified, the maximum diameter of the root shall be 1-1/2 inches.

Quality Expectation and Definitions

Similar varietal characteristics

"Similar varietal characteristics" means that the mustard or turnip greens shall be of one type (Such as, crinkly leaf type or smooth leaf type in the case of mustard greens). No mixture of types shall be permitted which materially affects the appearance of the lot.

Fresh

"Fresh" means that the mustard or turnip leaves are not more than slightly wilted.

Fairly tender

"Fairly tender" means that the greens are not old, tough, or excessively fibrous.

Fairly clean

"Fairly clean" means that the appearance of the greens is not materially affected by the presence of mud, dirt, or other foreign material.

Damage

"Damage" means any defect which materially affects the appearance, or the edible or shipping quality of the individual plant (with or without roots), the individual cut leaf, or the lot as a whole. Any one of the following defects, or any combination of defects, the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as damage:

- a) Seed stems when more than one-fourth the length of the longest leaf;
- (b) Discoloration when the appearance of the individual unit is materially affected by yellowing or any other type of discoloration; and,
- (c) Mechanical damage when the individual unit is badly crushed, torn, or broken.

Firm

"Firm" means that the root is not soft, flabby, or shriveled.

Proposed
Vegetable Standards

Item: Lettuce, Head/Leaf

Head Leaf consists of heads of lettuce which meet the following requirements, similar varietal characteristics, fresh, green and not soft. Free from decay, russet spotting, doubles. Free from injury by tip burn, downy mildew, field freezing, and discoloration, not damaged by any other cause. Each head shall be fairly well trimmed unless specified as closely trimmed.

Standard Sizing

Heads of lettuce shall be fairly uniform in size, and fairly tightly to tightly packed but not excessively tightly packed in uniform layers in the container according to the approved and recognized methods; except that in standard fiberboard containers a "bridge" of 6 heads may be placed between the layers in a 2 1/2 dozen pack.

Quality Expectation and Definitions

Similar varietal characteristics

"Similar varietal characteristics" means that the heads in any container have the same characteristic leaf growth. For example, lettuce of the Iceberg and Big Boston types shall not be mixed.

Fresh

"Fresh" means that the head as a whole has normal succulence and the wrapper leaves and the outermost head leaves are not more than slightly wilted.

Green

"Green" means that one-half or more of the exterior surface of the head, exclusive of the wrapper leaves, has at least a light green color.

No Doubles

"Doubles" means two heads on the same stem.

Fairly well trimmed

"Fairly well trimmed" means that the butt is trimmed off closely below the point of attachment of the outer leaves, and that on a head of Iceberg type lettuce, wrapper leaves do not exceed 7 in number.

Not Injured

"Injury" means any specific defect described in this section; or an equally objectionable variation of this defect, any other defect, or any combination of defects, which slightly detracts from the appearance, or the edible or marketing quality. The following specific defects shall be considered as injury:

- (a) Broken midribs when affecting 1 or more leaves.
- (b) Bruising when 2 or more leaves are slightly affected or slightly discolored by bruising.
- (c) Dirt or foreign material when slightly affects 1 or more leaves.
- (d) Discoloration when brown to black exceeds an aggregate area of 1/2 inch by 1 inch.
- (e) Downy Mildew when exceeds an aggregate area of 1/2 inch by 1 inch.
- (f) Insects or worms when any live or dead insects or worms or when excreta is present, or when 2 or more holes are present.
- (g) Mechanical when cut or torn more than an aggregate of 1-1/2 inches.
- (h) Russet Spotting when present in any amount.
- (i) Seed stems when more than 1 inch in length, measured from the point of attachment to the tip of the seed stem.
- (j) Tip burn when light buff or darker color exceeds an aggregate area of 1/2 inch by 1 inch.
- (k) Water soaked when an aggregate area of 1 inch exceeds by 1-1/2 inches.
- (l) Yellowing when exceeds an aggregate area of 1 inch by 1-1/2 inches.

Proposed
Vegetable Standards

Item: Mushrooms

Consists of (White, Portobello, Cremini, and Shitake) of similar varietal characteristics which are mature, at least fairly well shaped and well trimmed. Free from open veils, disease, spots, insect injury, and decay, and from damage by any cause.

Standard Sizing

Size is specified in terms of diameter and unless otherwise specified meets the requirements of one of the following size classifications:

- (1) Small to medium -- up to 1-5/8 inches in diameter;
- (2) Large -- over 1-5/8 inches in diameter.

Quality Expectation and Definitions

Similar varietal characteristics

"Similar varietal characteristics" means that the mushrooms are of the same general color. For example, white and brown mushrooms shall not be mixed in the same container.

Mature

"Mature" means that the mushroom is firm and well developed; the veil area may be stretched but not broken.

Fairly well shaped

"Fairly well shaped" means that the mushroom cap is not flattened, scalloped, indented or otherwise deformed to an extent which materially detracts from the appearance or marketing quality.

Well trimmed

"Well trimmed" means that the stems are smoothly cut, free from rough fleshy butts, the flared portion of the butt is removed and the remaining portion of the stem does not exceed the depth of the cap.

No Open veils

"Open veils" means that the cap has expanded to the extent that the protective covering or "veils" joining the margin of the cap to the stem have broken and exposed the gills or underside of the cap.

No Spots

"Spots" means pitted or discolored areas.

Not Damaged

"Damage" means any specific defect described in this section; or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects which materially detracts from the appearance, or the edible or marketing quality of the individual mushroom or of the mushrooms in the lot. The following specific defects shall be considered as damage:

- (a) Discoloration when the color of the cap or stem materially affects the appearance or marketing quality of the mushrooms.
- (b) Dirt when any amount is embedded in the cap or stem.

Proposed
Vegetable Standards

Item: Okra

Consists of pods of okra of similar varietal characteristics which are fresh, tender, not badly misshapen, free from decay, and from damage caused by dirt or other foreign matter, disease, insects, mechanical or other means.

Standard Sizing

Size is specified in terms of length and diameter and unless otherwise specified meets the minimum requirements in 3 inches in length and $\frac{3}{4}$ inches in diameter.

Quality Expectation and Definitions

Similar varietal characteristics

"Similar varietal characteristics" means that the pods are of the same color and general type.

Reasonable size

"Reasonable size" means that the pods are not spindly or excessively short for the variety and have not been prematurely picked.

Well formed

"Well formed" means that the pods have the normal typical shape for the variety.

Firm

"Firm" means that the pods are not wilted or flabby.

Not Damage

"Damage" means any defect, or any combination of defects, which materially detracts from the appearance, or the edible or marketing quality of the individual pod or of the lot as a whole.

Not Serious damage

"Serious damage" means any defect, or any combination of defects, which seriously detracts from the appearance, or the edible or marketing quality of the individual pod or of the lot as a whole.

Proposed
Vegetable Standards

Item: Onions

Consists of consists of onions which meet the following requirements of mature, not soft or spongy. Free from Decay; Wet sunscald and, Scallions. Free from serious damage caused by Watery scales; Dirt or Staining; Foreign Matter; Seed stems; Sprouts; Dry sunken areas; Disease; Freezing; Insects.

Standard Sizing

Size - Unless otherwise specified, the diameter shall not be less than 2 ¼ inches.

Quality Expectation and Definitions

Mature

"Mature" means well cured. Midseason onions which are not customarily held in storage shall be considered mature when harvested in accordance with good commercial practice at a stage which will not result in the onions becoming soft or spongy.

Not Dormant

"Dormant" means that at least 90 percent of the onions in any lot show no evidence of growth as indicated by distinct elongation of the growing point or distinct yellow or green color in the tip of the growing point.

Fairly firm

"Fairly firm" means that the onion may yield slightly to moderate pressure but is not appreciably soft or spongy.

Fairly well shaped

"Fairly well shaped" means having the shape characteristic of the variety, but onions may be slightly off-type or slightly misshapen.

Not Wet sunscald

"Wet sunscald" means sunscald which is soft, mushy, sticky or wet.

No Doubles

"Doubles" means onions which have developed more than one distinct bulb joined only at the base.

No Bottlenecks

"Bottlenecks" are onions which have abnormally thick necks with only fairly well developed bulbs.

No Scallions

"Scallions" are onions which have thick necks and relatively small and poorly developed bulbs.

Proposed
Vegetable Standards

Item: Peppers, Specialty (any Peppers other than sweet)

Consists of mature Cubanelle, Pablano, Anaheim, Red and Green Chili, Serrano and Habanero of similar varietal characteristics (except when more than one variety and/or color are marked on the container), which are firm, not seriously misshapen, and free from sunscald and decay affecting calyxes and/or walls, decay affecting stems, and free from serious damage caused by freezing injury, hail, scars, sunburn, disease, insects, mechanical or other means.

Standard Sizing and Color

Size -Unless otherwise specified, the size of specialty peppers should be consistent of entire lot.

Color- Any lot of peppers will meet 90 percent of the desired color without major sun burn or bacteria spots.

Quality Expectation and Definitions

Mature Color

“Mature” means that the pepper has reached the stage of development that will withstand normal handling and shipping.

Similar varietal characteristics

“Similar varietal characteristics” mean that each pepper is of the same general type (except when more than one variety and/or color are marked on the container). For example, thin walled types and thick walled types of the same color shall not be mixed within the container.

Firm

“Firm means” that the pepper is not soft, shriveled, limp or pliable, although it may yield to slight pressure.

Well shaped or fairly well shaped

“Well shaped” means that the pepper is not more than slightly curved, slightly indented or not otherwise more than slightly misshapen.

“Fairly well shaped” means that the pepper may be more than slightly indented or curved, but is not of the type commonly known as “button” or is not decidedly crooked, constricted or deformed.

Not Damaged

“Damage,” unless otherwise specifically defined in this section, means any defect which materially detracts from the appearance, or the edible or shipping quality of the pepper. Any one of the following defects, or any combinations of defects the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as damage:

- Scars when scattered over the surface and aggregating more than the area of a circle five-eighths inch in diameter or one scar three-eighths inch in diameter on a pepper 2-1/2 inch in length and 2-1/2 inches in diameter, or correspondingly lesser or greater areas of scars on smaller or larger peppers
- Sunburn when causing discoloration which affects an aggregate area exceeding 15 percent of the surface of the pepper
- Bacterial Spot when aggregating more than the area of a circle five-eighths inch in diameter on a pepper 2-1/2 inch in length and 2-1/2 inches in diameter, or correspondingly lesser or greater areas of spots on smaller or larger peppers; and,
- Hail or similar injury when the skin is healed and the affected areas aggregate more than the equivalent of a circle three-eighths inch in diameter on a pepper 2-1/2 inch in length and 2-1/2 inches in diameter, or correspondingly lesser or greater areas of injury on smaller or larger peppers.

Proposed

Vegetable Standards

Item: Peppers, Sweet

Consists of mature green, red, yellow, orange sweet peppers of similar varietal characteristics (except when more than one variety and/or color are marked on the container), which are firm, not seriously misshapen, and free from sunscald and decay affecting calyxes and/or walls, decay affecting stems, and free from serious damage caused by freezing injury, hail, scars, sunburn, disease, insects, mechanical or other means.

Standard Sizing and Color

Size -Unless otherwise specified, the diameter of each pepper shall be not less than 2-1/2 inches and the length of each pepper shall be not less than 2-1/2 inches.

Color- Any lot of peppers will meet 90 percent of the desired color without major sun burn or bacteria spots.

Quality Expectation and Definitions

Mature Color

“Mature” means that the pepper has reached the stage of development that will withstand normal handling and shipping.

Similar varietal characteristics

“Similar varietal characteristics” mean that each pepper is of the same general type (except when more than one variety and/or color are marked on the container). For example, thin walled types and thick walled types of the same color shall not be mixed within the container.

Firm

“Firm means” that the pepper is not soft, shriveled, limp or pliable, although it may yield to slight pressure.

Well shaped or fairly well shaped

“Well shaped” means that the pepper is not more than slightly curved, slightly indented or not otherwise more than slightly misshapen.

“Fairly well shaped” means that the pepper may be more than slightly indented or curved, but is not of the type commonly known as “button” or is not decidedly crooked, constricted or deformed.

Not Damaged

“Damage,” unless otherwise specifically defined in this section, means any defect which materially detracts from the appearance, or the edible or shipping quality of the pepper. Any one of the following defects, or any combinations of defects the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as damage:

- Scars when scattered over the surface and aggregating more than the area of a circle five-eighths inch in diameter or one scar three-eighths inch in diameter on a pepper 2-1/2 inch in length and 2-1/2 inches in diameter, or correspondingly lesser or greater areas of scars on smaller or larger peppers
- Sunburn when causing discoloration which affects an aggregate area exceeding 15 percent of the surface of the pepper
- Bacterial Spot when aggregating more than the area of a circle five-eighths inch in diameter on a pepper 2-1/2 inch in length and 2-1/2 inches in diameter, or correspondingly lesser or greater areas of spots on smaller or larger peppers; and,
- Hail or similar injury when the skin is healed and the affected areas aggregate more than the equivalent of a circle three-eighths inch in diameter on a pepper 2-1/2 inch in length and 2-1/2 inches in diameter, or correspondingly lesser or greater areas of injury on smaller or larger peppers.

Proposed
Vegetable Standards

Item: Radishes

Consists of radishes of similar varietal characteristics the roots of which are clean; well formed; smooth; firm and tender. Free from decay and free from damage caused by freezing, growth cracks or air cracks, cuts, pithiness, disease, insects, or other means. Bunched radishes have tops which are fresh and free from decay and free from damage caused by freezing, seed stems, yellowing or other discoloration, disease, insects, or other means.

Standard Sizing

Size - Unless otherwise specified, the diameter of each root shall be Medium" means three-fourths to 1 inch in diameter; "Large" means over 1 to 1-1/4 inches in diameter; "Very large" means over 1-1/4 inches in diameter. Bunched radish requirements for tops, shall be no longer than 4 inches and each bunch shall consist of 6-15 roots.

Quality Expectation and Definitions

Similar varietal characteristics

"Similar varietal characteristics" means that the radishes in any sample are similar in color and shape; for example, red varieties shall not be mixed with white varieties and globe-shaped varieties shall not be mixed with long-shaped varieties.

Clean

"Clean" means that the radishes are practically free from dirt or other foreign material.

Well formed

"Well formed" means that the root has the shape characteristic of the variety.

Smooth

"Smooth" means that the root is not rough, or ridged to the extent that the appearance is materially affected.

Firm

"Firm" means that the root is crisp and not soft, flabby, or wilted.

Tender

"Tender" means that the root is not stringy or woody.

Not Pithy

"Pithy" means that the root has an open texture with air spaces in the central portion.

Not Damaged

"Damage" means any specific defect described in this section; or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which materially detracts from the appearance, or the edible or marketing quality of the individual radish, the individual bunch of radishes.

Proposed
Vegetable Standards

Item: Rhubarb

Consists of stalks of rhubarb of similar varietal characteristics which are very well colored, fresh, tender, straight, clean, well trimmed and not pithy; which are free from decay, and free from damage caused by scars, freezing, disease, insects,

Standard Sizing

Size - The diameter of each stalk is not less than 1 inch, and the length is between 5 and 12 inches.

Quality Expectation and Definitions

Similar varietal characteristics

"Similar varietal characteristics" means that the rhubarb stalks are alike in general characteristics.

Very well colored

"Very well colored" means that a pink or red color predominates on three-fourths or more of the length of the stalk.

Fresh

"Fresh" means not limp or wilted.

Straight

"Straight" means that the stalk has not more than a slight concave curvature of the face, and not more than slight twisting along the longitudinal axis of the stalk.

Well trimmed

"Well trimmed" means that the top has been neatly knife-trimmed so that not more than 2 inches of the midribs and thin leaf tissue remains, and that most of the basal husk has been removed.

Not Pithy

"Pithy" means that the stalk has an open texture with air spaces in the central portion.

Not Damaged

"Damage" means any defect or any combination of defects which materially detracts from the appearance, or the edible or shipping quality of the stalk.

Proposed
Vegetable Standards

Item: Spinach

Spinach shall consist of spinach leaves or bunches of similar varietal characteristics which are fairly clean, well trimmed, free from coarse stalks, seed stems, seed buds, crowns and roots, sandburs or other kinds of burs, decay, and from damage caused by clusters of leaves, wilting, discoloration, freezing, foreign material, disease, insects, mechanical or other means.

Standard Bunching

Standard bunches of spinach shall be fairly uniform in size and each bunch of beets shall weigh not less than 1 pound.

Quality Expectation and Definitions

Similar varietal characteristics

"Similar varietal characteristics" means that the spinach shall be generally of one type, as crinkly leaf type, or flat leaf type. No mixture of varieties shall be permitted which materially affects the appearance of the lot.

Well grown

"Well grown" means not stunted or poorly developed.

Fairly cleaned

"Fairly clean" means generally free from dirt, sand or other adhering foreign matter and the appearance of the bunch is not materially affected.

Well trimmed

"Well trimmed" means that the leaf stems or petioles are not excessively long in relation to the size of the leaf blades.

Not Damaged

"Damage" means any defect which materially affects the appearance, or the edible or shipping quality of the individual leaves or of the lot as a whole.

Proposed

Vegetable Standards

Item: Summer Squash

Squash commonly used in this manner are yellow crookneck, yellow straight neck, white scallop (patty pan, cymling), zucchini, cocozelle, etc., each including one or more varieties.

Consists of squash of one variety or similar varietal characteristics which are not old and tough, but are firm, free from decay and breakdown, and free from damage caused by freezing, and from serious damage caused by discoloration, cuts, bruises, scars, dirt or other foreign material, disease, insects, mechanical or other means.

Standard Sizing

Standard length will consist of no less than 5 inches and no more than 12 inches. Standard diameter will consist of no less than 2 inches and no more than 5 inches. Variable summer squash (white scallop, patty pan, and cymling) will be determined as no allowance for immature product.

Quality Expectation and Definitions

Fairly young and fairly tender

"Fairly young and fairly tender" means a desirable stage of maturity for summer squash. This is indicated by fairly tender skin for the variety, fairly tender undeveloped seeds, and firm, moist seed cavity tissue.

Fairly well formed

"Fairly well formed" means that the shape of the squash is characteristic of the variety or type, and that it is not so badly twisted, grooved or otherwise misshapen by any cause as to damage the appearance of the squash.

Firm

"Firm" means that the squash does not yield appreciably to slight pressure, and is not noticeably wilted.

Damage

"Damage" means any specific defect described in this section; or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which materially detracts from the appearance, or the edible or marketing quality of the squash. The following specific defects shall be considered as damage:

- (a) Discoloration caused by scars, bruises or other means which materially damages the appearance of the squash.
- (b) Cuts, bruises, or scars which penetrate materially into the squash.
- (c) Insects. Worms or other insects present inside the squash, Worm holes which are unhealed or superficial insect injury which materially detracts from the appearance of the squash.

Not Old and tough

"Old and tough" means too far advanced in maturity to be suitable for use as summer squash. The skin is tough for the variety and the seeds are tough.

Diameter

"Diameter" means the greatest dimension of the squash measured at right angles to a line running from the stem to the blossom end.

Length

"Length" means the greatest dimension of the squash measured from the blossom end to the stem end, or in the case of crooknecks, to the curved surface farthest from the blossom end.

Proposed

Vegetable Standards

Item: Winter Squash and Pumpkin

These grade standards apply to squash and pumpkin, both of the cucurbit family, having a hard shell and mature seeds.

Consists of squash of one variety or similar varietal characteristics which are not old and tough, but are firm, free from decay and breakdown, and free from damage caused by freezing, and from serious damage caused by discoloration, cuts, bruises, scars, dirt or other foreign material, disease, insects, mechanical or other means.

Standard Sizing

Minimum and/or maximum size of any lot of squash or pumpkins may be purchased by the each and be received in sizes of small, medium and large unless specifically noted for larger sizes. There will be no allowance for immature product.

Quality Expectation and Definitions

Similar varietal characteristics

"Similar varietal characteristics" means having the same general characteristics, such as shape, texture and color.

Well matured

"Well matured" means reaching a stage of development which is indicative of good handling and keeping quality for the variety which outer shell is not tender.

Not Cracked

"Cracked" means split open, exposing the flesh.

Not Damaged

"Damage" means any specific defect described in this section or an equally objectionable variation of any one of these defects, any other defect or any combination of defects, which materially detracts from the appearance or edible or marketing quality. The following specific defects shall be considered as damage: Scars, which are not well healed and corked over, or which cover more than 10 percent of the surface in the aggregate, or which form depressions or pits that materially affect the appearance.

No Dry rot

"Dry rot" which affects an area more than 1 inch in diameter in the aggregate on a 10 pound specimen or correspondingly smaller or larger areas depending on the size of the specimen.

Proposed
Vegetable Standards

Item: Tomatoes

Consists of tomatoes which meet the following requirements:

Similar varietal characteristics, mature, not overripe or soft, clean, well developed, reasonably well formed, not more than slightly rough, free from: decay, freezing injury and sunscald. Not seriously damaged by any other cause.

Standard Sizing

Standard size will be packed in vendors packaging in bulk. We will accept USDA sizing small through extra large diameter. See USDA grading below.

Small2-4/32 inches

Medium2-17/32 inches

Large.....2-25/32 inches

Extra Large..... 3 plus inches

Quality Expectation and Definitions

Similar varietal characteristics

"Similar varietal characteristics" means that the tomatoes are alike as to firmness of flesh and shade of color (for example, soft-fleshed, early maturing varieties are not mixed with firm fleshed, midseason or late varieties, or bright red varieties mixed with varieties having a purplish tinge).

Mature

"Mature" means that the tomato has reached the stage of development which will insure a proper completion of the ripening process, and that the contents of two or more seed cavities have developed a jelly-like consistency and the seeds are well developed.

Soft

"Soft" means that the tomato yields readily to slight pressure.

Clean

"Clean" means that the tomato is practically free from dirt or other foreign material.

Well developed

"Well developed" means that the tomato shows normal growth. Tomatoes which are ridged and peaked at the stem end, contain dry tissue, and usually contain open spaces below the level of the stem scar, are not considered well developed.

Reasonably well formed

"Reasonably well formed" means that the tomato is not decidedly kidney-shaped, lop-sided, elongated, angular, or otherwise decidedly deformed.

Slightly rough

"Slightly rough" means that the tomato is not decidedly ridged or grooved.

APPENDIX B: PILOT PRODUCT PROJECT LIST

BEEF		Description	Unit	Price per lb.
	Ground	Ground Beef - Extra Lean	1	\$ 3.69
			20	\$ 3.39
		Ground Chuck	1	\$ 3.89
			20	\$ 3.60
		Ground Round	1	\$ 3.99
			20	\$ 3.70
	Primals	Hamburger Patties (sizes vary)	1	\$ 5.05
		Chuck	1	TBD
		Chuck Tender	1	TBD
		Blade	1	TBD
		Striploin	1	TBD
		Rump	1	TBD
		Silverside	1	TBD
		Topside	1	TBD
		Thick Flank	1	TBD
		Flank Steak	1	TBD
		Rib Set	1	TBD
		Short Ribs	1	TBD
		Brisket	1	TBD
		Cuts - Consumer Cryo	Eye of Round Roast	1
	Beef Brisket		1.5	\$ 5.89
	Beef Sirloin Cubes		1	\$ 4.99
	Beef Soup Bones		1	\$ 1.39
	Beef Chuck Roll/Roast		1	\$ 4.65
	Beef Short Ribs		1	\$ 5.29
	Beef Shoulder Roast		1.5	\$ 4.79
	Beef Tenderloin Filet/Filet Mignon		0.38	\$ 10.79
	New York Strip		1	\$ 9.59
	Beef Tenderloin Whole		1	\$ 8.59
	Flank Steak		1.5	\$ 8.09
	Tbone/Porterhouse		1	\$ 6.99
	Hanger Steak		1.5	\$ 5.49
	Ribeye Steak /Dellies		0.75	\$ 10.49
	Sirloin Roast		1	\$ 4.39
	Sirloin Steak		1	\$ 7.49
	Skirt Steak		1.5	\$ 6.99
	Standing Rib Roast		1.5	\$ 9.49
	Tri-tip Steak		1	\$ 7.49
PORK			Description	Unit
	Ground	Ground Pork	1	\$ 2.49
			20	\$ 2.24
	Primals	Shoulder Square	1	TBD
		Hock - Shoulder	1	TBD
		Middle	1	TBD
		Tenderloin	1	TBD
		Leg Set	1	TBD
		Leg - Ham Trim	1	TBD
	Cuts - Consumer Cryo	Hock - Leg	1	TBD
		Pork Chops - Boneless	1	\$ 3.55
		Pork Chop - Bone-In	1	\$ 3.59
		Gamon Steaks	1	\$ 3.69
		Pork Tenderloin	1	\$ 4.39
		St. Luis Spare Ribs	1.25	\$ 2.89
		Pork Hocks	1	\$ 2.39
		Boston Butt	lb (at least 8)	\$ 2.19
		Boneless Pork Butt	2	\$ 2.45
		Bone in Ham	1	\$ 2.29
		Country Style Ribs	1	\$ 2.79
		Baby Back Ribs	1	\$ 3.99
		Pork Loin Roast(Bone In)	1.5	\$ 3.49
		Pork Loin Roast (Boneless)	1	\$ 3.35
DAIRY		Description	Unit	Price per lb.
	Cheese	Chevre		TBD
		Camembert		TBD

Produce		Unit	Unit Description	Price	
		Asparagus	Case	28 lb	60
		Slicing Tomatoes - Field	Flat	10 lb	25
		Slicing Tomatoes - Greenhouse	Flat	10 lb	34
		Cherry Tomatoes	Flat	12 ct	28
		Grape Tomatoes	Flat	12 ct	28
		Lettuce - Bibb	Case	24's	26
		Winter Squash	Case	25 lb	20
		Summer Squash	Case	18 lb	20
		Bell Peppers	Case	25 lb	18
		Chile Peppers	Case	22 lb	23
		Rhubarb	Case	20 lb	26
		Leeks	Case	12's	24
		Green Onions	Case	48's	34
		Carrots	Case	28 lbs	35
		Radishes	case	24's	18
		Cucumbers	Case	50 lb	25
		Kale	Case	12's	11
		Swiss Chard	Case	12's	26
		Mustard Greens	Case	12'2	12
		Collards	Case	12'2s	12
		Endive	Case	30 lb	19
		Green Cabbage	Case	40 lb	14
		Savoy Cabbage	Case	40 lb	18
		Broccoli	Case	24 lb	32
		Cauliflower	Case	34 lb	50
		Sweet Corn	Box	4 dozen	24
		Cantelope	Case	9's	22
		Sweet Potatoes	Case	40 lb	20
		Baking Potatoes	Bag	50 lb	18
		Snow Peas	Case	10 lb	22
		Green Beans	Case	22 lb	40
		Spinach	Case	24's	24
	Vegetables	Garlic	Case	30 lb	42
		Blueberries	Flat	12's	36
		Raspberries	Flat	12's	28
		Strawberries	Flat	8's	24
		Grapes	Case	18 lb	36
		Apples	Case	100's	28
		European Pears	Case	90's	38
	Fruit	Asian Pears	Case	80's	40