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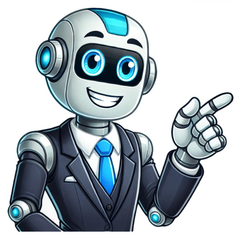

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The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material. Commercial onion farming is a very common, popular and old business in many countries around the world. Actually onions are cultivated and used throughout the world. The onion is also known by some other names such as bulb onion or common onion. It is a vegetable and this the most widely cultivated species of the genus Allium. Garlic, scallion, chive and Chinese onion are close relatives of onion. Onion is used mainly as a food item. Onions are generally served cooked, as a vegetable or part of a prepared savory dish, but can also be eaten raw or used to make pickles or chutneys. Most of the onions are pungent when chopped and contain certain chemical substances which may irritate the eyes. However, onion is one of the most popular and favorite vegetables for most of the people all over the world. Onion farming is very easy and profitable. Investment required for commercial onion farming business is relatively less and caring the plans is very easy. Beginners can also start commercial onion production easily. In the year of 2019, total worldwide production of onions and shallots was 4.5 millions tonnes. China was the top producer, producing 22% of world total, and Japan, Mali and South Korea as secondary producers. However, onion farming is very easy and profitable. You can start this business, even if you are a beginner. Read more information before starting commercial onion farming business. Onions are great vegetable containing various vitamins, minerals and potent plant compounds that have been shown to promote health in many ways. People are using onions from the ancient times mainly due to their medicinal properties. They are often used to treat ailments like headaches, mouth sores and hearth disease. Depending on the variety, most of the onions are about 1% protein, 9% carbohydrates (including 4% sugar and 2% dietary fiber), 89% water and negligible amount of fat.[1] Onions contain low amounts of essential nutrients and have an energy value of 40 kilocalories in a 100 grams amount. Onions contribute savory flavor to dishes without contributing significant caloric content. Onions are packed in various vitamins and minerals. And the medicinal properties of onions have been recognized since ancient times. However, here we are trying to describe about the top health benefits of onions. Onions are loaded with nutrients. They are low in calories but very high in vitamins and minerals. They are a good source of vitamin C, B and potassium. Consuming onions may help reduce heart disease risk factors (such as high blood pressure). Most of the onions are rich in antioxidants. Red onions are rich in anthocyanins, which are powerful plant pigments that may protect against heart disease, certain cancers and diabetes. A diet rich in allium vegetables (like onions) may have a protective effect against certain cancers. So, you can add onions to your daily diet. Consuming onions regularly may help reduce high blood sugar, due to the many beneficial compounds found in onions. Studies show that onion consumption is associated with improved bone mineral density. Onions have antibacterial properties. They prevent the growth of potentially harmful bacteria like E. coli and S. aureus. Onions are helpful and may help you to boost your digestive health. They are rich source of probiotics, which help to boost digestive health, improve bacterial balance in your gut and benefit your immune system. You can enjoy onions in many different ways. They can easily be added to savory dishes, including eggs, meat dishes, soups and baked goods. Large scale or commercial onion farming business is very old and popular in many countries throughout the world. Starting and operating commercial onion farming business is very easy and simple. Even the beginners can also start this business. Commercial onion farming is very profitable and a very good way to earn money. Here we are trying to describe the main benefits/advantages of commercial onion farming business. Commercial onion farming is a very old and popular business in many countries. Many people are already doing this business for earning their livelihood. People are growing onions from the ancient time. Its an established business, so you dont have to worry much about starting and operating this business. You will be able to find many onion farmers in your area. Growing onions is very easy and simple, even the beginners can also start commercial production. You can make good profit from onion farming business, because commercial onion production is profitable. You will be able to make very good profits within a very short period of time. Both demand and value of onions in the market are good. It is a very popular item in the vegetable market. So, you dont h ave to worry much about marketing your products. Caring onion plants is very easy, and the plants generally grow very well. You will be able to care for the plants even if you are a beginner. Commercial onion farming is very profitable, so it can be a good employment source for the rural people. Especially for the educated unemployed people. Commercial production of onions doesnt require high investment. And you will get back your invested money within a very short period of time. Onions are very nutritious and consuming them on a regular basis has many health benefits. You can enjoy fresh onions (if you like them) if you start your own onion farming business. Starting commercial onion farming business is relatively easy and simple. Onion plants generally grow well and its very easy and simple to care for the plants. Although, you should learn practically from an expert farmer if you are a beginner. Here we are trying to describe more information about starting and operating a successful onion farming business from planting caring to harvesting and marketing. Onions can be grown in a wide range of soils. They can be grown from sandy loam to clay loam with good drainage facilities. Optimum pH level for growing onions should be between 6.5 and 7.5. Preparing the land perfectly is a very important part of commercial onion farming business. So, prepare the land perfectly. Plow the land to get fine tilth and apply well rotted farm yard manure at the rate of 20 tonnes per hectare at the time of the last plowing. Contact a local expert for chemical fertilizer recommendations. Onion plants grow well and are adapted to a temperature range of 13 C to 24 C for the vegetative stage and 16 C to 21 C for the bulbing stage, and 30 C to 35 C at maturity and harvest. Best production can be obtained in mild weather without the extremes of cold, heat and excess rainfall. There are many different onion varieties available to choose from. And all these varieties differ in size, shape and color. Different types of onions are available such as white, red and yellow with the size ranging from small pickling to large. And shape of the onions also vary, such as globe, top or spindle-shaped. You should choose those varieties which grow well in your area. So, consult with your local farmers for having good recommendations. Some common onion varieties are Yellow Sweet Spanish, Red Wethersfield, First Edition, Burgundy, White Bermuda and Stuttgarter. Onion plants can be grown in many different ways. You can start growing onions from transplants, sets or seeds. So after selecting the varieties, you can buy either sets, transplants or seeds. For commercial onion farming, irrigation is necessary at the time of transplanting/dibbling of cloves, and then a light irrigation is required on the 3rd day after planting. Water the transplants immediately after planting. Onion plats generally require less caring and other management. Although, taking additional caring will help the plants to grow well. Here we are trying to describe more about onion caring. Onion plants are heavy feeders. They require additional fertilization for better growth. Generally 150:50:80:80 kg NPKS is required per hectare. Apply 50% N and 100% P, K and S as basal dose and remaining 50% of N to be applied in two splits at 30 to 45 days after transplanting. The topdressing must be completed before bulb development. Irrigation is a must for successful onion farming business. Water the transplants immediately after planting, and apply a light irrigation on the third day after planting and subsequent irrigation will be done at 7 to 10 days interval (depending upon the soil condition and season). Mulching is a good option for retaining moisture into the soil. It also helps to prevent weeds from the field. You can use organic materials for mulching. Weeds consume nutrients from the soil and the plants suffer. So, controlling weeds on a regular basis is very important. Initially, remove all the weeds before planting. You can apply Oxyfluorfen at the rate of 0.15 to 0.25 kg per hectare or Fluchloralin at the rate of 1 kg per hectare or Pendimethalin at the rate of 3.5 litter per hectare. For direct seeded crop, apply Pendimethalin at the rate of 3ml per liter of water just after sowing. Doing this will not affect the germination and seedling growth. Pests and diseases are generally less in onion farming business. Although, you should consult with an expert in your area if you face any problems. You should start harvesting onions at 50% neck fall stage. Harvesting onions at the right stage of maturity is very important. Generally, the onion bulbs reach maturity when the plants cease to produce new leaves and roots. Neck fall is the indication of maturity of onions. Although, exact time of harvesting depends on several factors such as planting season, variety/cultivar, market price and also the condition of the crop. If you want to store the onions, then ensure that all the onions are fully developed before harvesting. The onions are generally harvested by hand through pulling the bulbs (if the soil is light). Its very difficult to tell the exact number. Because exact exact amount of yield depends on numerous factors. Generally, you can expect between 25 and 30 tonnes per hectare. Marketing of onions is very easy. This is a very good advantages of commercial onion farming business. You can sell to local wholesale stores or retail stores or you can even sell in government market yards. These are the common steps and ways for starting and operating a successful onion farming business. Hope this guide has helped you! Good luck! Facebook Twitter LinkedIn Onion farming can be profitable with significant earnings but it takes careful planning and execution. According to the USDA, onion production in the United States generated over $886 million in cash receipts in 2020. Success in onion farming depends on soil quality, seed selection, irrigation, and pest control. A well-crafted onion farming business plan can help maximize profits by outlining efficient production, marketing, and sales strategies. For instance, selecting the right onion varieties based on market demand and crop management practices can significantly increase yield and quality. In this ultimate guide, we will explore the essential elements of an onion farming business plan and provide practical tips for maximizing profit. Onion farming is the cultivation of the Allium cepa plant, which belongs to the Liliaceae family. Onions are grown for their bulbs, which are produced annually. The leaves of the onion plant are semi-cylindrical or tubular in structure and have a waxy coating on the surface. The stem can grow up to 200 cm in height, and flowers appear at the tip of the stem, which are greenish-white. The onion bulb has several layers of overlapping surfaces around a central core and can expand up to 10 cm in diameter. Onions are an important crop worldwide and are used in various cuisines for their distinct flavor and aroma. They are also rich in antioxidants and have several health benefits. High profitability: Onion farming can be highly profitable, especially in large quantities. Market demand: Onions are widely used in various cuisines worldwide, making them popular. Multiple uses: Onions can be used in various forms, such as fresh, dehydrated, and powdered, making them versatile and suitable for different markets. Low input costs: Onion farming requires relatively low input costs, making it an attractive option for small-scale farmers. Drought resistance: Onions are drought-resistant crops and can withstand periods of low water availability. Long shelf life: Onions have a long shelf life, making them suitable for storage and transportation, reducing the risk of spoilage. Health benefits: Onions are high in antioxidants and have several other health benefits, including reducing the risk of heart and certain types of cancer diseases. In case you missed it: Growing Onions Organically in Maharashtra: Cultivation Practices and Production Management Red onions: These onions have a deep red-purple color and a sweet, mild flavor. They are commonly used in salads, sandwiches, and burgers. Yellow onions: These have a yellow-brown outer layer and a strong, pungent flavor. They are versatile and are used in various cuisines. White onions: These have a white outer layer and a mild, sweet flavor. They are used in Mexican and Southwestern cuisine. Shallots: These onions have a milder, sweeter flavor than regular onions and are commonly used in French cuisine. Spring onions: These are harvested before they mature and have a mild, sweet flavor. They are commonly used in Asian cuisine. Indias most popular onion varieties include red, NHRDF, Pusa Red, and Agrifound Dark Red. These onions are widely grown and consumed in various dishes, including curries, biryanis, and salads. Onion is a widely cultivated and popular vegetable crop. Commercial onion farming requires ideal soil and weather conditions, appropriate irrigation techniques, and proper intercropping and crop rotation practices. Here are some key tips and requirements for successful onion production. Site for cultivation: Onion is a temperate crop that requires alluvial soil to grow. Depending on the location and time of cultivation, it can be grown as short-day onions (ideal for hilly regions) or long-day onions (suitable for plains). Climatic conditions: The perfect climate for onion cultivation is mild and gentle, with a temperature range of 13-24C during the vegetative growth phase and 16-25C during the bulb development phase. Onion crops also need a relative humidity of 70% and average annual rainfall of 650-750 mm. The season for growing: Onions are grown as Rainy and Winter crops, and the time and season of cultivation depend on the geographical location and weather conditions. Soil pH: Onion can be grown in all soil types, but loamy soil with good drainage capacity and organic matter is ideal. The pH of the soil be neutral (6.0 to 7.0). In case you missed it: White Onion Farming in India: Grow Onions Bigger, Faster and Onion Growing Duration Irrigation type: Onions require small amounts of irrigation at regular intervals to maintain optimal soil temperature and moisture for growth and bulb development. Modern irrigation methods like drip irrigation and sprinkler irrigation are used to prevent excess water loss. Land preparation: The last plowing should include vermicomposting or poultry manure (3 tonnes per acre). Leveling and bed preparation after plowing. Seasonally, beds might be flat or have broad bed furrows. Broad bed furrows are 15 cm high, 120 cm wide, and 45 cm deep. Flatbeds are 1.5-2 meters wide and 4-6 meters long. Onions are grown in broad bed furrows in rainy and flat beds in winter.Onion planting: After 3040 days in nurseries, onion seedlings are transported to fields. Onion cultivation requires nursery management and transplanting. Nursery management in onion: Onion seedlings may be grown on 0.15 acres for a one-hectare main field. Plow and clod-free the nursery field. For nursery preparation, raised beds should be 10-15 cm high, 1 m wide, and convenient in length. To drain excess water, beds should be 30 cm apart. Damping-off diseases are prevented by 2g/Kg thiram or Trichoderma viride on seeds. Seedlings are placed 10 cm apart in prepared beds. Transplanting: Avoid transplanting over- and under-aged seedlings. Roots are soaked in 0.1% carbendazim solution for two hours after cutting one-third of the seedlings top to manage fungal diseases. Early transplantation increases bulbs. Onion transplantation depends on place and season.Onion diseases and pest protection: Fungi, bacteria, nematodes, and insects can infect onions. Onion Yellow Dwarf and Irish Yellow Spot viruses are notable. Onions are vulnerable to viral diseases such as Onion Yellow Dwarf and Irish Yellow Spot, fungal infections such as Damping Off, Stemphylium Blight, Purple Blotch, and Anthracnose, and insect pests such as Thrips and Eriphyid mites. Control measures for these diseases and pests include using resistant varieties, crop rotation, intercropping, insecticide spraying, and soil treatment. Irrigation: Onions need frequent irrigation to grow and bulb. Growth stage and climate affect water needs. Onions need 400500 mm of water per season. Waterlogging causes root rot and bulb deterioration, therefore altering the irrigation plan. To dry onions, discontinue irrigation two weeks before harvest. Fertilization: Onions need balanced nutrition for healthy growth and maximum production. To determine nutrition and fertilizer needs, test the soil. Soil type, crop rotation, and other factors affect fertilizer schedules. Onions need 1:1:2 nitrogen, phosphorus, and potassium. Fertilizers should be separated during the growing season. Farmyard, vermicompost, and poultry manure are organic fertilizers. In case you missed it: Hybrid High Yield Onions Varieties in India: For Rabi, Kharif, Late, and Early Kharif Harvesting and grading: Onion harvesting is done by gently pulling the plants from the soil when the green tops start drooping. The bulbs are then cleaned, dried in the shade for four days, and graded based on the size as A (above 80mm), B (50-80 mm), and C (30-50 mm). The grading process is done manually or by machines. Storage: Properly stored onions last several months. Onions should be held at 0-1C and 65-70% humidity. Onions should be stored in a well-ventilated environment to control mold and moisture. Sort and grade bulbs before storing them. Remove infected bulbs. Onion cultivation is an important aspect of agriculture for commercial and subsistence farming. This project report aims to provide an overview of onion cultivation, including its history, cultivation methods, and the varieties commonly grown onions. This report will also cover important aspects such as soil preparation, planting techniques, pest and disease management, harvesting, post-harvest handling, production cost, returns, and profits. Additionally, the report will touch on the economic importance of onion cultivation, including its impact on global food security and farmers livelihoods. The cost of production for onion cultivation can vary depending on several factors, such as the size of the farm, the variety of onions grown, and the farms location. In the USA, the cost of production per acre for onion farming can range from $3,000 to $6,000, while in India, it can range from INR 45,000 to INR 65,000 per acre. The major components of the cost of production include land preparation, seed cost, labor cost, irrigation, fertilizers, and pest management. The total cost of onion cultivation was found to be the highest in the labor component, which accounted for 43.5% of the total cost. Following this came the cost of fertilizers, which comprised 25.9% of the total cost, and the cost of seeds, which included 10.8%. Other expenses, such as irrigation, land rent, and insecticides, accounted for 19.8% of the total cost. In case you missed it: Pig Farming Project Report: Investment, Profit for 10, 20, 50, 100, and 500 Pigs/Hogs The returns on onion cultivation largely depend on the yield and the market demand for onions. The average yield per acre of onions in the United States is around 15-20 tons; in India, it is about 10-12 tons per acre(It may vary based on variety). The market prices for onions can vary greatly depending on demand and supply, ranging from $0.20 to $0.50 per pound in the United States and INR 5 to INR 15 per kg in India(It may reach as high as 60-120 at peak season). The profits from onion cultivation can be attained by subtracting the cost of production from the returns. In the United States, the profit per acre can range from $5,000 to $10,000, while in India, it can range from INR 80,000 to INR 160,000 per acre. Due to the great demand for onions in domestic and international markets, growing onions is an economic enterprise. In 2020, global onion output hit 105.4 million tonnes, as reported by the Food and Agriculture Organization (FAO). The United States and China are the next two major producers of onions, after India. Onion yields range from 20 to 25 tons per hectare, depending on climate and growing practices. Onions are in high demand because of their versatility in cooking. The United States, Germany, the UK, and Spain are among the largest importers of onions. Demand for onions in the food industry is estimated to propel the worldwide onion market to expand at a CAGR of 3.5% between 2021 and 2026. The production and demand for onions fluctuate due to external factors like climate, pests and diseases, and consumer demand. High-quality onion production is essential for farmers in todays cutthroat market. A successful onion farming business plan requires careful planning and execution. The plan should include various components, such as market analysis, financial projections, and production planning. The market analysis should identify target markets, competitors, and demand trends. Financial projections should include startup costs, revenue projections, and cash flow analysis. Production planning should cover cultivation methods, seed selection, pest and disease management, harvesting, and post-harvest handling. The plan should also address marketing and sales strategies, risk management, and legal and regulatory compliance. By developing a comprehensive onion farming business plan, farmers can set clear goals and objectives, mitigate risks, and maximize profitability. A well-executed business plan can help farmers secure financing, attract customers, and establish a successful onion farming business. A successful business plan for onion farming should include several important components. Firstly, an executive summary should be included that provides a brief overview of the business and its objectives. This should be followed by a market analysis identifying the target market, market trends, and competition. The next component should describe the onion farming operations, including the cultivation methods, equipment, and labor requirements. In case you missed it: From Seed Selection to Successful Business: Crafting a Comprehensive Avocado Farming Business Plan This section should also include information on the variety of onions to be grown, the expected yield per hectare, and the estimated production costs. The financial analysis section should be included, which outlines the startup costs, cash flow projections, and profitability analysis. This should include a detailed breakdown of production costs, such as land, labor, seeds, fertilizers, and irrigation systems. A marketing strategy should also be included that outlines how the onions will be sold, such as through direct sales to retailers or wholesalers. This should include a pricing strategy and promotional activities such as advertising and social media marketing. Risk analysis and management should also be included, identifying potential risks such as adverse weather conditions, pest and disease infestations, and market fluctuations. This section should also outline strategies to mitigate these risks and protect the business from financial losses. Lastly, a management team section should be included, outlining the roles and responsibilities of the key personnel involved in the onion farming operations. A well-thought-out business plan is needed for an onion farm to be successful. Farmers can improve their maximize and accomplish their objectives with the help of market research, financial forecasts, risk mitigation techniques, and a comprehensive marketing plan. Are you considering venturing into the world of onion production? Whether you're a seasoned farmer looking to diversify your crops or a newcomer eager to learn more about this lucrative industry, understanding the profitability of onion production is essential. In this concise guide, we'll explore seven key questions that will help you navigate the complexities of onion farming and maximize your success. Profitability Questions Covered:Is a Onion Production a profitable business venture?How long does it typically take for a Onion Production to become profitable?What annual revenue can a Onion Production typically generate?What are the key revenue streams for a Onion Production business?What are the most significant financial risks when operating a Onion Production?What strategies can a Onion Production employ to diversify revenue streams and enhance profitability?What are the potential scalability options for a Onion Production business? Is Onion Production a profitable business venture? Onion Production can indeed be a profitable business venture for entrepreneurs looking to enter the agricultural industry. With the rising demand for fresh, locally sourced produce, onion farmers have the opportunity to establish a successful business by catering to consumer preferences for high-quality, sustainably grown onions. One of the key factors that contribute to the profitability of Onion Production is the direct-to-consumer sales model. By bypassing traditional distribution channels and selling their produce directly to consumers through farmers markets, CSAs, and online platforms, onion farmers can command higher prices for their onions and eliminate the need for middlemen, thereby increasing their profit margins. Furthermore, by focusing on sustainable and organic farming practices, Onion Production businesses can differentiate themselves in the market and build a loyal customer base. Consumers are increasingly seeking out products that are grown in an environmentally friendly manner, and by adopting these practices, onion farmers can enhance their reputation and attract more customers. Additionally, Onion Production businesses can diversify their revenue streams by offering value-added products such as onion powder, pickled onions, and onion relish. These products not only provide additional sources of income but also help to attract customers who are looking for unique and gourmet onion products. Invest in modern farming techniques to increase crop yield and quality.Conduct market analysis to identify consumer preferences and trends.Implement efficient supply chain management practices to reduce costs and improve profitability. When considering the financial risks associated with Onion Production, farmers should be aware of factors such as fluctuating market prices, weather-related challenges, and crop diseases. By developing risk management strategies and financial planning, Onion Production businesses can mitigate these risks and ensure long-term profitability. In terms of scalability options, Onion Production businesses can explore opportunities to expand their operations by acquiring additional land, increasing production capacity, and entering new markets. By carefully planning for growth and implementing sound business expansion strategies, onion farmers can capitalize on the growing demand for locally grown onions and achieve sustainable business growth. Onion Production Business Plan Customized Strategies for Success Expert Guidance and Insights Clear Roadmap to Achieve Goals Impress Investors and Secure Funding Instant Download How long does it typically take for Onion Production to become profitable? Onion Production, like any agricultural business, requires time and investment before it starts generating profits. The timeline for profitability in Onion Production can vary depending on various factors such as scale of operation, market demand, production costs, and pricing strategy. Typically, Onion Production can start to become profitable within the first 1 to 3 years of operation. During the initial years, onion farmers may need to invest in land, equipment, seeds, labor, and marketing efforts before they can break even and start generating a profit. By focusing on efficient farming practices, quality products, and effective marketing strategies, onion farmers can speed up the process of profitability. According to industry benchmarks and real-life statistical data for the years 2022 onwards, Onion Production businesses have reported reaching profitability within 2 to 4 years of establishment. This timeline takes into account the time required to establish a customer base, build brand reputation, and optimize production processes to enhance profitability. One key factor that can influence the speed of profitability in Onion Production is the adoption of sustainable and organic farming practices. By catering to the growing demand for organic produce and premium quality onions, farmers can command higher prices for their products, thereby accelerating the path to profitability. Diversify Revenue Streams: Consider offering value-added products such as onion powder, pickled onions, and onion relish to expand your product offerings and increase revenue opportunities.Focus on Market Analysis: Conduct thorough market research to identify trends, consumer preferences, and competitive landscape to position your Onion Production business for success.Implement Scalability Options: Explore opportunities for scaling up your business, such as expanding cultivation areas, investing in technology for efficiency, and partnering with other businesses for distribution. By strategically managing costs, optimizing production processes, and diversifying revenue streams, Onion Production businesses can achieve profitability within a reasonable timeframe and establish a sustainable venture in the agricultural industry. What annual revenue can Onion Production typically generate? Onion Production can be a profitable business venture for farmers looking to enter the agricultural industry. The annual revenue that an Onion Production can typically generate varies depending on several factors such as farm size, production methods, market demand, and pricing strategies. However, industry benchmarks and real-life statistical data for the latest years (2022 till today) can provide insights into the potential revenue streams for Onion Production. On average, a small to medium-sized Onion Production farm focusing on direct-to-consumer sales through farmers markets, CSAs, and online platforms can generate an annual revenue ranging from $50,000 to $150,000. This revenue range is achievable by cultivating quality onions, offering value-added products, and building a loyal customer base. By adopting sustainable and organic farming practices, Onion Production farmers can enhance their profitability and attract environmentally conscious consumers who are willing to pay premium prices for high-quality produce. Additionally, diversifying revenue streams by offering value-added products such as onion powder, pickled onions, and onion relish can further boost annual revenue. Focus on quality: Invest in soil health, proper irrigation, and pest control measures to ensure high-quality onion yields that can command higher prices in the market.Market analysis: Conduct market research to identify trends, consumer preferences, and pricing strategies that can help maximize revenue potential for Onion Production.Supply chain management: Streamline the supply chain process to reduce costs, minimize wastage, and optimize efficiency in delivering onions to consumers. In conclusion, Onion Production has the potential to generate significant annual revenue for farmers who implement effective strategies, focus on quality, and diversify their revenue streams. With scalability options available to expand the business, Onion Production can be a lucrative agricultural business venture for entrepreneurs in the farming industry. Onion Production Financial Model 5-Year Excel Financial Projection 40+ Charts & Metrics DCF & Multiple Valuation Free Email Support Free Video Tutorial What are the key revenue streams for a Onion Production business? Onion Production can be a profitable business venture with multiple revenue streams that contribute to its overall financial success. Understanding the key revenue streams in this industry is essential for maximizing profitability and sustaining growth. Here are some of the primary revenue streams for an Onion Production business: Direct-to-Consumer Sales: One of the main revenue streams for Onion Production is direct-to-consumer sales through farmers markets, CSAs, and online platforms. By selling onions directly to consumers, farmers can eliminate the need for middlemen and increase their profit margins. Value-Added Products: Another revenue stream for Onion Production is offering value-added products such as onion powder, pickled onions, and onion relish. By diversifying their product offerings, farmers can attract a wider customer base and increase their overall revenue. Wholesale Distribution: Some Onion Production businesses also generate revenue through wholesale distribution to restaurants, grocery stores, and other retailers. This allows farmers to reach a larger market and increase their sales volume. Agri-Tourism: For Onion Production businesses located in rural areas, agri-tourism can be a lucrative revenue stream. By offering farm tours, workshops, and other experiential activities, farmers can generate additional income and attract new customers. Contract Farming: Contract farming agreements with food processors, canners, or other businesses can also provide a steady source of revenue for Onion Production businesses. These partnerships can help farmers secure a consistent market for their onions. Focus on quality and variety of onions to attract customers willing to pay a premium price.Invest in sustainable and organic farming practices to differentiate your products in the market.Explore online sales channels to reach a broader customer base and increase sales opportunities. By leveraging these key revenue streams and implementing effective strategies for revenue diversification, Onion Production businesses can enhance their profitability and achieve long-term success in the market. What are the most significant financial risks when operating Onion Production? Operating an Onion Production business comes with several financial risks that entrepreneurs should be aware of in order to make informed decisions and mitigate potential challenges. Below are some of the most significant financial risks associated with Onion Production: Market Volatility: The onion market is subject to price fluctuations due to various factors such as weather conditions, supply and demand dynamics, and global economic trends. Farmers may face sudden drops in prices or unexpected increases in production costs, impacting their profitability. Weather Risks: Onion production is heavily dependent on weather conditions, with factors such as droughts, floods, hailstorms, and extreme temperatures posing risks to crop yields. Farmers may incur losses if their onion crops are damaged or fail to meet quality standards due to adverse weather events. Input Costs: The cost of inputs such as seeds, fertilizers, pesticides, and irrigation systems can vary significantly and impact the overall profitability of an Onion Production business. Fluctuations in input prices can increase production costs and reduce profit margins. Competition: The agricultural industry is competitive, and onion farmers may face challenges from larger corporations, established suppliers, or new market entrants. Competition can lead to pricing pressures, reduced market share, and difficulties in attracting and retaining customers. Regulatory Changes: Changes in government regulations related to farming practices, food safety standards, environmental protection, or trade policies can impact Onion Production businesses. Compliance with regulatory requirements may require additional investments or lead to operational disruptions. Seasonality: Onion production is seasonal, with peak harvest periods and off-peak seasons affecting revenue streams and cash flow. Farmers need to manage their finances effectively to withstand fluctuations in income throughout the year. Monitor market trends and prices regularly to make informed decisions about planting schedules and sales strategies.Diversify revenue streams by offering value-added products or exploring alternative distribution channels.Implement risk management strategies such as crop insurance, hedging contracts, or diversification of crops to mitigate the impact of unexpected events. Onion Production Pitch Deck Expertly Crafted Content Tailored to Your Needs Time-Saving Solution Proven Success Investor-Ready Templates What strategies can a Onion Production employ to diversify revenue streams and enhance profitability? Onion Production can implement various strategies to diversify revenue streams and boost profitability in the competitive agricultural industry. By exploring different avenues for income generation, Onion Production can mitigate risks and maximize earning potential. Here are some effective strategies to consider: Value-Added Products: One way Onion Production can diversify revenue streams is by offering value-added products derived from onions. This can include onion powder, pickled onions, onion relish, and even onion-infused oils. By creating unique and high-quality products, Onion Production can appeal to a broader market and command higher prices. Direct Sales Channels: While direct-to-consumer sales are a common practice in onion production, Onion Production can explore additional direct sales channels to reach a wider audience. This can include setting up an online store, partnering with local grocery stores, or supplying restaurants and food service businesses. Diversification of Crop Varieties: Instead of focusing solely on traditional onion varieties, Onion Production can diversify its crop offerings to include specialty onions like sweet onions, red onions, or heirloom varieties. By catering to diverse consumer preferences, Onion Production can capture a larger market share and increase sales. Agri-Tourism: Onion Production can also consider incorporating agri-tourism activities into its business model. This can include hosting farm tours, on-farm events, or workshops related to onion cultivation. Not only does this provide an additional revenue stream, but it also helps in building brand awareness and customer loyalty. Collaborations and Partnerships: By forming partnerships with other local farmers or businesses, Onion Production can create cross-promotional opportunities and tap into new markets. Collaborating with complementary businesses, such as a garlic farm or a cooking school, can open up avenues for joint marketing and product offerings. Conduct market research to identify emerging trends and consumer preferences in the onion industry.Invest in quality packaging and branding to differentiate your products and attract customers.Regularly review and adjust pricing strategies to remain competitive in the market. What are the potential scalability options for an Onion Production business? Onion Production is a profitable business venture that offers various scalability options for expansion and growth. As onion farmers look to enhance profitability and increase their annual revenue, exploring different strategies to scale up their business is essential. Here are some potential scalability options for Onion Production businesses: Expand cultivation operations: One of the primary scalability options for Onion Production businesses is to expand their cultivation operations. This can involve increasing the size of land under cultivation, diversifying onion varieties grown, and implementing advanced farming techniques to boost crop yield and quality. By scaling up cultivation operations, onion farmers can meet the growing demand for their produce and enhance their revenue streams. Explore new markets: To scale up their business, Onion Production farmers can explore new markets beyond local farmers markets and CSAs. This can include supplying onions to grocery stores, restaurants, food processors, or even exporting onions to international markets. By tapping into new markets, onion farmers can reach a wider customer base and increase their sales volume. Diversify revenue streams: Another scalability option for Onion Production businesses is to diversify their revenue streams. In addition to selling fresh onions, farmers can consider offering value-added products such as onion powder, pickled onions, onion relish, or even onion-based skincare products. Diversifying revenue streams can help mitigate financial risks and increase overall profitability. Implement technology: Embracing technology can also enhance scalability for Onion Production businesses. Farmers can invest in automation tools for planting, harvesting, and processing onions, as well as implement precision farming techniques to optimize crop management. Leveraging technology can increase efficiency, reduce labor costs, and improve overall productivity. Form strategic partnerships: Collaborating with other players in the agricultural supply chain, such as seed suppliers, distributors, or retailers, can also facilitate scalability for Onion Production businesses. By forming strategic partnerships, farmers can access new resources, markets, and expertise to grow their business. By considering these scalability options, Onion Production businesses can position themselves for sustainable growth and success in the competitive farming industry. Conduct market research to identify new opportunities for expansion.Invest in ongoing training and development for farm management and staff.Maintain a strong focus on quality and customer satisfaction to build a loyal customer base. Expert-built startup financial model templates Investor-friendly Easy-to-use Excel & PPT templates CPA-developed financials 30+ charts and metrics Bulbous vegetable grown for foodThis article is about the plant. For other uses, see Onion (disambiguation)."Onions" redirects here. For the surname, see Onions (surname).OnionA display of commercially-grown bulbs, including red and yellow cultivars.Scientific classification Kingdom:PlantaeClade:TracheophytesClade:AngiospermsClade:MonocotsOrder:AsparagalesFamily:AmaryllidaceaeSubfamily:AllioideaeGenus:AlliumSubgenus:A. subg. CepaSpecies:A.cepaBinomial nameAllium cepaL.Synonyms[1]Species synonymyAllium angolense BakerAllium aobanum ArakiAllium ascalonicum auct.Allium ascalonicum var. condensum MillnAllium ascalonicum var. fertile MillnAllium ascalonicum f. rotterianum Voss ex J.BeckerAllium ascalonicum var. sterile MillnAllium cepa var. aggregatum G.DonAllium cepa var. anglicum Alef.Allium cepa var. argenteum Alef.Allium cepa var. bifolium Alef.Allium cepa var. crinides Alef.Allium cepa var. flandricum Alef.Allium cepa var. globosum Alef.Allium cepa var. hispanicum Alef.Allium cepa var. jamesii Alef.Allium cepa var. lisboanum Alef.Allium cepa var. luteum Alef.Allium cepa var. multiplicans L.H.BaileyAllium cepa var. portanum Alef.Allium cepa var. praecox Alef.Allium cepa var. rosum Alef.Allium cepa var. sanguineum Alef.Allium cepa var. solaninum Alef.Allium cepa var. tripolitanum Alef.Allium cepa var. viviparum (Metzg.) Alef.Allium cepaeum St.-Lag.Allium commune NoronhaAllium cumaria Buch.-Ham. ex Wall.Allium esculentum Salisb.Allium napus Pall. ex KunthAllium nigritanum A.Chev.Allium pauciflorum Willd. ex Ledeb.Allium salota DostlAscalonicum sativum P.RenaultCepa alba P.RenaultCepa esculenta GrayCepa pallens P.RenaultCepa rubra P.RenaultCepa vulgaris GarsaultKepa esculenta Raf.Porrum cepa (L.) Rchb.An onion (Allium cepa L.Tooltip Carl Linnaeus, from Latin cepa), also known as the bulb onion or common onion, is a vegetable that is the most widely cultivated species of the genus Allium. The shallot is a botanical variety of the onion which was classified as a separate species until 2011. The onion's close relatives include garlic, scallion, leek, and chives.The genus contains several other species variously called onions and cultivated for food, such as the Japanese bunching onion Allium fistulosum, the tree onion Allium proliferum, and the Canada onion Allium canadense. The name wild onion is applied to a number of Allium species, but A. cepa is exclusively known from cultivation. Its ancestral wild original form is not known, although escapes from cultivation have become established in some regions. The onion is most frequently a biennial or a perennial plant, but is usually treated as an annual and harvested in its first growing season.The onion plant has a fan of hollow, bluish-green leaves, and its bulb at the base of the plant begins to swell when a certain day-length is reached. The bulbs are composed of shortened, compressed, underground stems surrounded by fleshy modified scale (leaves) that envelop a central bud at the tip of the stem. In the autumn (or in spring, in the case of overwintering onions), the foliage dies down and the outer layers of the bulb become more dry, and brittle. The crop is harvested and dried and the onions are ready for use or storage. The crop is prone to attack by a number of pests and diseases, particularly the onion fly, the onion eelworm, and various fungi which can cause rotting. Some varieties of A. cepa, such as shallots and potato onions, produce multiple bulbs.Onions are cultivated and used around the world. As a food item, they are often served raw as a vegetable or part of a prepared savoury dish, but can be eaten cooked or used to make pickles or chutneys. They are pungent when chopped and contain certain chemical substances which may irritate the eyes.The onion plant (Allium cepa), also known as the bulb onion[2] or common onion,[3] is the most widely cultivated species of the genus Allium.[4][5] It was first officially described by Carl Linnaeus in his 1753 work Species Plantarum.[6] Synonyms during its taxonomic history are:[7][8]Allium cepa var. aggregatum G. DonAllium cepa var. bulbiferum RegelAllium cepa var. cepa LinnaeusAllium cepa var. multiplicans L.H. BaileyAllium cepa var. proliferum (Moench) RegelAllium cepa var. solaninum AlefAllium cepa var. viviparum (Metz) Mansf.[7][8]A. cepa is known exclusively from cultivation,[9] but related wild species occur in Central Asia and Iran. The most closely related include A. vavilovii from Turkmenistan and A. asarense from Iran.[10][11] The genus Allium contains other species variously called onions and cultivated for food, such as the Japanese bunching onion (A.fistulosum), Egyptian onion (A. proliferum), and Canada onion (A.canadense).[3] The vast majority of cultivars of A.cepa belong to the common onion group (A.cepavar.cepa) and are usually referred to simply as onions. The Aggregatum Group of cultivars (A.cepavar.aggregatum) includes both shallots,[12] formerly classed as a separate species,[13][14] and potato onions.[12] Related species include garlic, leek, and chives.[15]Cepa is commonly accepted as Latin for "onion"; the generic name Allium is the classical Latin name for garlic.[16] It has an affinity with Spanish: cebolla, Italian: cipolla, Polish: cebula, and the German Zwiebel (this last altered by folk etymology). The English word "chive" is from the Old French chive , in turn from cepa.[17]The onion is a biennial plant but is usually grown as an annual. Modern varieties typically grow to a height of 15 to 45cm (6 to 18in). The leaves are yellowish- to bluish green and grow alternately in a flattened, fan-shaped swathe. They are fleshy, hollow, and cylindrical, with one flattened side. They are at their broadest about a quarter of the way up, beyond which they taper to blunt tips. The base of each leaf is a flattened, usually white sheath that grows out of the basal plate of a bulb. From the underside of the plate, a bundle of fibrous roots extends for a short way into the soil. As the onion matures, food reserves accumulate in the leaf bases, and the bulb of the onion swells.[18]In the autumn, the leaves die back, and the outer scales of the bulb become dry and brittle, so the crop is normally harvested. If left in the soil over winter, the growing point in the middle of the bulb begins to develop in the spring. New leaves appear, and a long, stout, hollow stem expands, topped by a bract protecting a developing inflorescence. The inflorescence takes the form of a rounded umbel of white flowers with parts in sixes. The seeds are glossy black and triangular in cross-section.[18] The average pH of an onion is around 5.5.[19]Roots, leaves and developing bulbInflorescence with flower budsSeedsMedieval woodcut print of an onion, from Hortus Sanitatis (1547)Humans have grown and selectively bred onions in cultivation for at least 7,000 years.[20] The geographic origin of the onion is uncertain; ancient records of onion use span both eastern and western Asia.[21][22] Domestication likely took place in West or Central Asia.[12][23] Onions have been variously described as having originated in Iran, western Pakistan and Central Asia.[21][23]:1[22][24] The onion species Allium fistulosum (spring onion, bunching onion) and Allium tuberosum (Chinese leek) were domesticated in China around 6000 BC alongside other vegetables, grains, and fruits.[25]Recipes using onions and other Allium species were recorded in cuneiform script on clay tablets in ancient Mesopotamia, around 2000 BC; the tablets are held in Yale University's Babylonian collection.[26] The Assyriologist and "gourmet cook"[26] Jean Bottero stated this was "a cuisine of striking richness, refinement, sophistication and artistry".[26]Ancient Egyptians revered the onion bulb, viewing its spherical shape and concentric rings as symbols of eternal life.[23] Onions were used in Egyptian burials, as evidenced by onion traces found in the eye sockets of Ramesses IV.[27] Pliny the Elder of the first century AD wrote about the use of onions and cabbage in Pompeii. He documented Roman beliefs about the onion's ability to improve ocular ailments, aid in sleep, and heal everything from oral sores and toothaches to dog bites, lumbago, and even dysentery. Archaeologists unearthing Pompeii long after its 79 AD volcanic burial have found gardens resembling those in Pliny's detailed narratives. According to texts collected in the fifth/sixth century AD under the authorial aegis of "Apicius" (said to have been a gourmet), onions were used in many Roman recipes.[23]In the Age of Discovery, onions were taken to North America by the first European settlers in part of the Columbian exchange. They found close relatives of the plant such as Allium tricoccum readily available and widely used in Native American gastronomy.[21] According to diaries kept by some of the first English colonists, the bulb onion was one of the first crops planted in North America by the Pilgrim fathers.[23] Between 1883 and 1939, inventors in the United States patented 97 inventions meant to make onion-growing more efficient through automation.[28]See also: List of onion dishesSauting onionsThree colour varieties of onions offer different possibilities for the cook: Yellow or brown onions are sweet, with many cultivars bred specifically to accentuate this sweetness, such as Vidalia, Walla Walla, Cvennes, and Bermuda.[29] Yellow onions turn a rich, dark brown when caramelised and are used to add a sweet flavour to various dishes, such as French onion soup.[30]Red or purple onions, known for their sharp pungent flavour, are commonly cooked in many cuisines, and used raw and in grilling.[30]White onions are mild in flavour; they have a golden colour when cooked and a particularly sweet flavour when sauted.[30][23]While the large, mature onion bulb is most often eaten, onions can be eaten at immature stages. Young plants may be harvested before bulbing occurs and used whole as spring onions or scallions. When an onion is harvested after bulbing has begun, but the onion is not yet mature, the plants are sometimes referred to as "summer" onions. Onions may be bred and grown to mature at smaller sizes, known as pearl, boiler, or pickler onions; these are not true pearl onions which are a different species.[31] Pearl and boiler onions may be cooked as a vegetable rather than as an ingredient, while pickler onions are often preserved in vinegar as a long-lasting relish.[32] Onions pickled in vinegar are eaten as a side serving with traditional pub food such as a ploughman's lunch.[33]Onions are commonly chopped and used as an ingredient in various hearty warm dishes, and may be used as a main ingredient in their own right, for example in French onion soup, creamed onions, and onion chutney. They are versatile and can be baked, boiled, braised, grilled, fried, roasted, sauted, or eaten raw in salads.[34] Onions are a major ingredient of some curries; the Persian-style dopiaza's name means "double onion", and it is used both in the dish's sour curry sauce and as a garnish.[35] Onion powder is a seasoning made from finely ground, dehydrated onions; it is often included in seasoned salt and spice mixes.[36]Onion epidermis cells are visible in true color with minimal magnification.Onions have particularly large cells that are easy to observe under low magnification. Forming a single layer of cells, the bulb epidermis is easy to separate for educational, experimental, and breeding purposes.[37][38] Onions are therefore commonly used in science education to teach the use of a microscope for observing cell structure.[39] Onion skins can be boiled to make an orange-brown dye.[40]Raw onion bulbsNutritional value per 100g (3.5oz)Energy166kJ (40kcal)Carbohydrates9.34 gSugars4.24 gDietary fibre1.7 gFat0.1 gProtein1.1 gVitamins and mineralsVitaminsQuantity %DVThiamine (B1)4% 0.046 mgRiboflavin (B2)2% 0.027 mgNiacin (B3)1% 0.116 mgPantothenic acid (B5)2% 0.123 mgVitamin B67% 0.12 mgFolate (B9)5% 19 gVitamin C8% 7.4 mgMineralsQuantity %DVCalcium2% 23 mgIron1% 0.21 mgMagnesium2% 10 mgManganese6% 0.129 mgPhosphorus2% 29 mgPotassium5% 146 mgZinc2% 0.17 mgOther constituentsQuantityWater89.11 gFluoride1.1 gLink to USDA Database entryPercentages estimated using USrecommendations for adults,[41] except for potassium, which is estimated based on expert recommendation from the National Academies.[42]Most onion cultivars are about 89% water, 9% carbohydrates (including 4% sugar and 2% dietary fibre), 1% protein, and negligible fat (table). Onions contain low amounts of essential nutrients and have an energy value of 166 kJ (40 kilocalories) in a 100g (3.5oz) amount. Onions contribute savoury flavour to dishes without contributing significant caloric content.[23]Onion varieties vary widely in phytochemical content, particularly for polyphenols, with shallots having the highest level, six times the amount found in Vidalia onions. Yellow onions have the highest total flavonoid content, an amount 11 times higher than in white onions. Red onions have considerable content of anthocyanin pigments, with at least 25 different compounds identified representing 10% of total flavonoid content.[43] Like garlic,[44] onions can show an additional colour pink-red after cutting, an effect caused by reactions of amino acids with sulfur compounds.[45] Onion polyphenols are under basic research to determine their possible biological properties in humans.[43][46]Some people suffer from allergic reactions after handling onions.[47] Symptoms can include contact dermatitis, intense itching, rhinoconjunctivitis, blurred vision, bronchial asthma, sweating, and anaphylaxis. Allergic reactions may not occur when eating cooked onions, possibly due to the denaturing of the proteins from cooking.[48]Freshly cut onions can produce a stinging sensation in the eyes of people nearby and often uncontrollable tears. This is caused by the release of a volatile liquid, syn-propanethial-S-oxide and its aerosol, which stimulates nerves in the eye. This gas is produced by a chain of reactions which serve as a defence mechanism: chopping an onion causes damage to cells which releases enzymes called alliinases. These break down amino acid sulfoxides and generate sulfenic acids. A specific sulfenic acid, 1-propenesulfenic acid, is rapidly acted on by a second enzyme, the lacrimatory factor synthase (LFS), producing the syn-propanethial-S-oxide.[4] This gas diffuses through the air and soon reaches the eyes, where it activates sensory neurons. Lacrimal glands produce tears to dilute and flush out the irritant. Eye irritation can be minimised by cutting onions under running water or submerged in a basin of water.[49] Leaving the root end intact also reduces irritation as the onion base has a higher concentration of sulphur compounds than the rest of the bulb.[50]Cut onions emit a chemical compound which cause the lacrimal glands in the eyes to become irritated, releasing tears.Model of syn-Propanethial-S-oxide, the volatile molecule that causes eye irritationThe amount of sulfenic acids and lacrimal factor released and the irritation effect differs among Allium species. In 2008, the New Zealand Institute for Crop and Food Research created "no tears" onions by genetic modification to prevent the synthesis of lachrymatory factor synthase in onions.[51] One study suggests that consumers prefer the flavour of onions with lower LFS content.[52] Since the process impedes sulfur ingestion by the plant, some find LFS onions inferior in flavour.[53]A method for efficiently differentiating LFS and LFS+ onions has been developed based on mass spectrometry, with potential application in high-volume production;[54] gas chromatography is also used to measure lachrymatory factor in onions.[55][56] In early 2018, Bayer released the first crop yield of commercially available LFS-silenced onions under the name "Sunions".[57] They were the product of 30 years of cross-breeding; genetic modification was not employed.[57][58]Guinea hen weed and honey garlic contain a similar lachrymatory factor.[59] Synthetic onion lachrymatory factor has been used in a study related to tear production,[60] and has been proposed as a nonlethal deterrent against thieves and intruders.[61][62]Onions are toxic to animals including dogs, cats, and guinea pigs.[63][64]Onion bulbs to be planted for seed productionLarge-scale onion cultivationOnions are best cultivated in fertile, well-drained soils. Sandy loams are good as they are low in sulphur, while clayey soils usually have a high sulphur content and produce pungent bulbs. Onions require a high level of nutrients in the soil. Phosphorus is often present in sufficient quantities, but may be applied before planting because of its low level of availability in cold soils. Nitrogen and potash can be applied at regular intervals during the growing season, the last application of nitrogen being at least four weeks before harvesting.[65]Bulbing onions are day-length sensitive; their bulbs begin growing only after the number of daylight hours has surpassed some minimal quantity. Most traditional European onions are referred to as "long-day" onions, producing bulbs only after 14 hours or more of daylight occurs. Southern European and North African varieties are often known as "intermediate-day" types, requiring only 1213 hours of daylight to stimulate bulb formation. "Short-day" onions, which have been developed in more recent times, are planted in mild-winter areas in the autumn and form bulbs in the early spring and require only 1112 hours of daylight to stimulate bulb formation.[66] Onions are a cool-weather crop and can be grown in USDA zones 3to9.[67] Hot temperatures or other stressful conditions cause them to "bolt", meaning that a flower stem begins to grow.[68]Onions are grown from seeds or from partially grown bulbs called "sets" or starter bulbs. Onion seeds are short-lived and fresh seeds germinate more effectively when sown in shallow rows, or "drills," with each drill 12" to 18" apart.[67][69] In suitable climates, certain cultivars can be sown in late summer and autumn to overwinter in the ground and produce early crops the following year.[18]Onion bulbs are produced by sowing seeds in a dense pattern in early summer, then harvested in the autumn when the bulbs are still small, followed by drying and storage. These bulbs are planted the following spring and grow into mature bulbs later in the growing season.[70] Certain cultivars used for growing and storing bulbs may not have as good storage characteristics as those grown directly from seed.[18]Routine care during the growing season involves keeping the rows free of competing weeds, especially when the plants are young. The plants are shallow-rooted and do not need much water when established. Bulbing usually takes place after 12 to 18 weeks. The bulbs can be gathered when needed to eat fresh, but if stored, they are harvested after the leaves have died back naturally. In dry weather, they may be left on the surface of the soil for a few days for drying, then are placed in nets, roped into strings, or laid in layers in shallow boxes to be stored in a cool, well-ventilated place.[18]Onions suffer from several pests and diseases. The most serious for the home gardener are likely to be the onion fly, stem and bulb eelworm, white rot, and neck rot. Diseases affecting the foliage include rust and smut, downy mildew, and white tip disease. The bulbs may be affected by splitting, white rot, and neck rot. Shanking is a condition in which the central leaves turn yellow and the inner part of the bulb collapses into an unpleasant-smelling slime. Most of these disorders are best treated by removing and burning affected plants.[71] The larvae of the onion leaf miner or leek moth (Acrolepiopsis assectella) sometimes attack the foliage and may burrow down into the bulb.[72]The onion fly (Delia antiqua) lays eggs on the leaves and stems and on the ground close to onion, shallot, leek, and garlic plants. The fly is attracted to the crop by the smell of damaged tissue and is liable to occur after thinning. Plants grown from sets are less prone to attack. The larvae tunnel into the bulbs and the foliage wilts and turns yellow. The bulbs are disfigured and rot, especially in wet weather. Control measures may include crop rotation, the use of seed dressings, early sowing or planting, and the removal of infested plants.[73]The onion eelworm (Ditylenchus dipsaci), a tiny parasitic soil-living nematode, causes swollen, distorted foliage. Young plants are killed and older ones produce soft bulbs. No cure is known and affected plants should be uprooted and burned. The site should not be used for growing onions again for several years and should also be avoided for growing carrots, parsnips, and beans, which are also susceptible to the eelworm.[74]White rot of onions, leeks, and garlic is caused by the soil-borne fungus Sclerotium cepivorum. As the roots rot, the foliage turns yellow and wilts. The bases of the bulbs are attacked and become covered by a fluffy white mass of mycelia, which later produces small, globular black structures called sclerotia. These resting structures remain in the soil to reinfect a future crop. No cure for this fungal disease exists, so affected plants should be removed and destroyed and the ground used for unrelated crops in subsequent years.[75]Neck rot is a fungal disease affecting onions in storage. It is caused by Botrytis allii, which attacks the neck and upper parts of the bulb, causing a grey mould to develop. The symptoms often first occur where the bulb has been damaged and spread down the affected scales. Large quantities of spores are produced and crust-like sclerotia may also develop. In time, a dry rot sets in and the bulb becomes a dry, mummified structure. This disease may be present throughout the growing period, but only manifests itself when the bulb is in storage. Antifungal seed dressings are available and the disease can be minimised by preventing physical damage to the bulbs at harvesting, careful drying and curing of the mature onions, and correct storage in a cool, dry place with plenty of circulating air.[76]Larvae of the onion flyOnion smut, Urocystis colchici var. cepulae, on a seedlingOnion leaf spot caused by Cladosporium allii-cepaeBacterial soft rot caused by Erwinia carotovora subsp. carotovoraAnthracnose caused by Colletotrichum dematium subsp. circinansOnion oil is authorised for use in the European Union for use as a pesticide against carrot fly in umbelliferous crops (carrots, parsnips, parsley, celery, celeriac).[77]Production of onions and shallots (green) in 2022CountrytonnesChina864,488Mali610,576Angola558,480Japan510,462World4,970,615Source: UN Food and Agriculture Organization[78]Onion grading at the Centre for Agroecology, Water and Resilience, England, using a manually-operated sorterOnions are a widely cultivated vegetable crop, produced in the second largest quantity after tomatoes.[79] In 2021, the top global producers of onions were China, India, the United States, and Turkey.[80] In 2022, world production of onions and shallots (as green produce) was 5.0 million tonnes, led by China with 17% of the total, and Mali, Angola, and Japan as secondary producers.[78]In the home, cooking onions and sweet onions are best stored at room temperature, optimally in a single layer, in large mesh bags in a dry, cool, dark, well-ventilated location. In this environment, cooking onions have a shelf life of three to four weeks and sweet onions one to two weeks. Cooking onions will absorb odours from apples and pears. Additionally, they draw moisture from vegetables with which they are stored which may cause them to decay.[67][81]Sweet onions have a greater water and sugar content than cooking onions. This makes them sweeter and milder tasting, but reduces their shelf life. Sweet onions can be stored refrigerated; they have a shelf life of around one month. Irrespective of type, any cut pieces of onion are best tightly wrapped, stored away from other produce, and used within two to three days.[50]Further information: List of onion cultivarsRossa di Tropea onions for sale in ItalyMost of the diversity within A. cepa occurs within this group, the most economically important Allium crop. Plants within this group form large single bulbs, and are grown from seed or seed-grown sets. The majority of cultivated varieties grown for dry bulbs, salad onions, and pickling onions belong to this group.[12] The range of diversity found among these cultivars includes variation in photoperiod (length of day that triggers bulbing), storage life, flavour, and skin colour.[82] This group contains shallots and potato onions, also referred to as multiplier onions. The bulbs are smaller than those of common onions, and a single plant forms an aggregate cluster of several bulbs from a master. They are propagated almost exclusively from daughter bulbs, although reproduction from seed is possible. Shallots are the most important subgroup within this group and comprise the only cultivars cultivated commercially. They form aggregate clusters of small, narrowly ovoid to pear-shaped bulbs. Potato onions differ from shallots in forming larger bulbs with fewer bulbs per cluster, and having a flattened (onion-like) shape. Intermediate forms exist.[12]I'itoi onion is a prolific multiplier onion cultivated in the Baboquivari Peak Wilderness, Arizona area. This small-bulb type has a shallot-like flavour and is easy to grow and ideal for hot, dry climates. Bulbs are separated, and planted in the fall 25mm (1in) below the surface and 300mm (12in) apart. Bulbs will multiply into clumps and can be harvested throughout the cooler months. Tops die back in the heat of summer and may return with heavy rains; bulbs can remain in the ground or be harvested and stored in a cool dry place for planting in the fall. The plants rarely flower; propagation is by division.[83]The tree or Egyptian onion is a hybrid of A. cepa and A. fistulosum.Some hybrids are cultivated that have A. cepa parentage, such as the diploid tree onion or Egyptian onion (A. proliferum), and the triploid onion (A. cornutum).[84]The tree onion or Egyptian onion produces bulblets in the umbel instead of flowers, and is now known to be a hybrid of A. cepa and A. fistulosum. It has previously been treated as a variety of A. cepa, for example A. cepa var. proliferum, A. cepa var. bulbiferum, and A. cepa var. viviparum.[85][86] It has been grown for centuries in Japan and China for use as a salad onion.[87][3]The triploid onion is a hybrid species with three sets of chromosomes, two sets from A. cepa and the third set from an unknown parent.[86] Various clones of the triploid onion are grown locally in different regions, such as 'Ljutika' in Croatia, and 'Pran', 'Poonch', and 'Srinagar' in the India-Kashmir region. 'Pran' is grown extensively in the northern Indian provinces of Jammu and Kashmir. There are very small genetic differences between 'Pran' and the Croatian clone 'Ljutika', implying a monophyletic origin for this species.[88]Spring onions or salad onions may be grown from the Welsh onion (A. fistulosum), as well as from A. cepa. Young plants of A. fistulosum and A. cepa look very similar, but may be distinguished by their leaves, which are circular in cross-section in A. fistulosum rather than flattened on one side.[89]An Onion Johnny, his bicycle laden with onions and garlic, in London, 2008The name 'the Big Onion' was formerly used of New York City, before it became 'the Big Apple', and Chicago became 'the Big Onion'.[26]The 10th century Exeter Book, written in Old English, contains a riddle which seems to be about an onion, with sexual overtones. The "wondrous creature, a joy to women" stands "in a bed"; "My column is erect and tall"; a woman "rubs me to redness" but at once "she feels my meeting"; the riddle ends "Wet will be that eye."[90]In the Odyssey, Homer included the lines "I saw the shining tunic about his skin, like the skin of a dried onion, so soft was it, and it shone in the sun".[91] R. Drew Griffith comments that the double comparison of the tunic that Penelope gave to the disguised Odysseus to onion and sun "risks being funny", and notes that Theopompus indeed found it "ridiculous".[92] Griffith suggests that Homer included the onion because of its capacity to produce tears, hinting at Penelope's sorrow at Odysseus's long absence.[92]Onion Johnnies were Breton farmers and agricultural labourers who travelled from Roscoff in Brittany, originally on foot and later on bicycles, selling strings of distinctive pink onions door to door in Britain.[93]In India, when the price of onions became very high in 2015, the Hindustan Times recorded that people shared many onion jokes, such as the punning () , (pya (r)z lo, pyaz do, "take love, give me onions").[94]List of Allium speciesPyruvate scale^ "Allium cepa L.". World Checklist of Selected Plant Families. Royal Botanic Gardens, Kew via The Plant List. Note that this website has been superseded by World Flora Online^ "Allium cepa var. cepa". Germplasm Resources Information Network. Agricultural Research Service, United States Department of Agriculture. Retrieved 10 December 2017.^ a b c Fritsch 2002, pp.910.^ a b Eric Block, "Garlic and Other Alliums: The Lore and the Science" (Cambridge: Royal Society of Chemistry, 2010)^ Brewster JL (1994). Onions and other vegetable Alliums (1sted.). Wallingford, UK: CAB International. p.16. ISBN978-0-85198-753-8.^ Linnaeus C (1753). Species Plantarum (in Latin). Vol.1. Stockholm: Laurentii Salvii. p.262. Archived from the original on 16 June 2018. Retrieved 21 February 2018.^ a b NRCS.

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You can help Wikipedia by expanding it.vteRetrieved from " 3The following pages link to 4-Oxo-2-nonenal External tools(link counttransclusion countsorted list) See help page for transcluding these entriesShowing 50 items.View (previous 50 | next 50) (20 | 50 | 100 | 250 | 500)Celery (links | edit)Dehydroepiandrosterone (links | edit)Hydrogen peroxide (links | edit)Mentha (links | edit)Oregano (links | edit)Rosemary (links | edit)Thyme (links | edit)Turmeric (links | edit)Tobacco (links | edit)Vanilla (links | edit)Wasabi (links | edit)Paclitaxel (links | edit)Nicotine (links | edit)Cannabis (links | edit)Horseradish (links | edit)Onion (links | edit)Cinnamon (links | edit)Ginger (links | edit)Capsaicin (links | edit)Tetrahydrocannabinol (links | edit)Formaldehyde (links | edit)Clove (links | edit)Paracetamol (links | edit)Anandamide (links | edit)Black pepper (links | edit)Pepper spray (links | edit)Radish (links | edit)CS gas (links | edit)Incense (links | edit)Hypericum perforatum (links | edit)Cannabinoid (links | edit)Vanillin (links | edit)Tramadol (links | edit)Phenacyl chloride (links | edit)Arachidonic acid (links | edit)Camphor (links | edit)Grains of paradise (links | edit)Allicin (links | edit)Menthol (links | edit)Curcumin (links | edit)Basil (links | edit)Substance P (links | edit)Isothiocyanate (links | edit)Cinnamaldehyde (links | edit)Bradykinin (links | edit)Stevioside (links | edit)Methyl salicylate (links | edit)Thymol (links | edit)Mace (spray) (links | edit)CR gas (links | edit)View (previous 50 | next 50) (20 | 50 | 100 | 250 | 500)Retrieved from " WhatLinksHere/4-Oxo-2-nonenal" Commercial onion farming is a very common, popular and old business in many countries around the world. Actually onions are cultivated and used throughout the world. The onion is also known by some other names such as bulb onion or common onion. It is a vegetable and this the most widely cultivated species of the genus Allium. Garlic, scallion, chive and Chinese onion are close relatives of onion. Onion is used mainly as a food item. Onions are generally served cooked, as a vegetable or part of a prepared savory dish, but can also be eaten raw or used to make pickles or chutneys. Most of the onions are pungent when chopped and contain certain chemical substances which may irritate the eyes. However, onion is one of the most popular and favorite vegetables for most of the people all over the world. Onion farming is very easy and profitable. Investment required for commercial onion farming business is relatively less and caring the plans is very easy. Beginners can also start commercial onion production easily. In the year of 2019, total worldwide production of onions and shallots was 4.5 millions tonnes. China was the top producer, producing 22% of world total, and Japan, Mali and South Korea as secondary producers. However, onion farming is very easy and profitable. You can start this business, even if you are a beginner. Read more information before starting commercial onion farming business. Onions are great vegetable containing various vitamins, minerals and potent plant compounds that have been shown to promote health in many ways. People are using onions from the ancient times mainly due to their medicinal properties. They are often used to treat ailments like headaches, mouth sores and hearth disease. Depending on the variety, most of the onions are about 1% protein, 9% carbohydrates (including 4% sugar and 2% dietary fiber), 89% water and negligible amount of fat.[1] Onions contain low amounts of essential nutrients and have an energy value of 40 kilocalories in a 100 grams amount. Onions contribute savory flavor to dishes without contributing significant caloric content. Onions are packed in various vitamins and minerals. And the medicinal properties of onions have been recognized since ancient times. However, here we are trying to describe about the top health benefits of onions. Onions are loaded with nutrients. They are low in calories but very high in vitamins and minerals. They are a good source of vitamin C, B and potassium. Consuming onions may help reduce heart disease risk factors (such as high blood pressure). Most of the onions are rich in antioxidants. Red onions are rich in anthocyanins, which are powerful plant pigments that may protect against heart disease, certain cancers and diabetes. A diet rich in allium vegetables (like onions) may have a protective effect against certain cancers. So, you can add onions to your daily diet. Consuming onions regularly may help reduce high blood sugar, due to the many beneficial compounds found in onions. Studies show that onion consumption is associated with improved bone mineral density. Onions have antibacterial properties. They prevent the growth of potentially harmful bacteria like E. coli and S. aureus. Onions are helpful and may help you to boost your digestive health. They are rich source of probiotics, which help to boost digestive health, improve bacterial balance in your gut and benefit your immune system. You can enjoy onions in many different ways. They can easily be added to savory dishes, including eggs, meat dishes, soups and baked goods. Large scale or commercial onion farming business is very old and popular in many countries throughout the world. Starting and operating commercial onion farming business is very easy and simple. Even the beginners can also start this business. Commercial onion farming is very profitable and a very good way to earn money. Here we are trying to describe the main benefits/advantages of commercial onion farming business. Commercial onion farming is a very old and popular business in many countries. Many people are already doing this business for earning their livelihood. People are growing onions from the ancient time. Its an established business, so you dont have to worry much about starting and operating this business. You will be able to find many onion farmers in your area. Growing onions is very easy and simple, even the beginners can also start commercial production. You can make good profit from onion farming business, because commercial onion production is profitable. You will be able to make very good profits within a very short period of time. Both demand and value of onions in the market are good. It is a very popular item in the vegetable market. So, you dont h ave to worry much about marketing your products. Caring onion plants is very easy, and the plants generally grow very well. You will be able to care for the plants even if you are a beginner. Commercial onion farming is very profitable, so it can be a good employment source for the rural people. Especially for the educated unemployed people. Commercial production of onions doesnt require high investment. And you will get back your invested money within a very short period of time. Onions are very nutritious and consuming them on a regular basis has many health benefits. You can enjoy fresh onions (if you like them) if you start your own onion farming business. Starting commercial onion farming business is relatively easy and simple. Onion plants generally grow well and its very easy and simple to care for the plants. Although, you should learn practically from an expert farmer if you are a beginner. Here we are trying to describe more information about starting and operating a successful onion farming business from planting caring to harvesting and marketing. Onions can be grown in a wide range of soils. They can be grown from sandy loam to clay loam with good drainage facilities. Optimum pH level for growing onions should be between 6.5 and 7.5. Preparing the land perfectly is a very important part of commercial onion farming business. So, prepare the land perfectly. Plow the land to get fine tilth and apply well rotted farm yard manure at the rate of 20 tonnes per hectare at the time of the last plowing. Contact a local expert for chemical fertilizer recommendations. Onion plants grow well and are adapted to a temperature range of 13 C to 24 C for the vegetative stage and 16 C to 21 C for the bulbing stage, and 30 C to 35 C at maturity and harvest. Best production can be obtained in mild weather without the extremes of cold, heat and excess rainfall. There are many different onion varieties available to choose from. And all these varieties differ in size, shape and color. Different types of onions are available such as white, red and yellow with the size ranging from small pickling to large. And shape of the onions also vary, such as globe, top or spindle-shaped. You should choose those varieties which grow well in your area. So, consult with your local farmers for having good recommendations. Some common onion varieties are Yellow Sweet Spanish, Red Wethersfield, First Edition, Burgundy, White Bermuda and Stuttgarter. Onion plants can be grown in many different ways. You can start growing onions from transplants, sets or seeds. So after selecting the varieties, you can buy either sets, transplants or seeds. For commercial onion farming, irrigation is necessary at the time of transplanting/dibbling of cloves, and then a light irrigation is required on the 3rd day after planting. Water the transplants immediately after planting. Onion plats generally require less caring and other management. Although, taking additional caring will help the plants to grow well. Here we are trying to describe more about onion caring. Onion plants are heavy feeders. They require additional fertilization for better growth. Generally 150:50:80:80 kg NPKS is required per hectare. Apply 50% N and 100% P, K and S as basal dose and remaining 50% of N to be applied in two splits at 30 to 45 days after transplanting. The topdressing must be completed before bulb development. Irrigation is a must for successful onion farming business. Water the transplants immediately after planting, and apply a light irrigation on the third day after planting and subsequent irrigation will be done at 7 to 10 days interval (depending upon the soil condition and season). Mulching is a good option for retaining moisture into the soil. It also helps to prevent weeds from the field. You can use organic materials for mulching. Weeds consume nutrients from the soil and the plants suffer. So, controlling weeds on a regular basis is very important. Initially, remove all the weeds before planting. You can apply Oxyfluorfen at the rate of 0.15 to 0.25 kg per hectare or Fluchloralin at the rate of 1 kg per hectare or Pendimethalin at the rate of 3.5 litter per hectare. For direct seeded crop, apply Pendimethalin at the rate of 3ml per liter of water just after sowing. Doing this will not affect the germination and seedling growth. Pests and diseases are generally less in onion farming business. Although, you should consult with an expert in your area if you face any problems. You should start harvesting onions at 50% neck fall stage. Harvesting onions at the right stage of maturity is very important. Generally, the onion bulbs reach maturity when the plants cease to produce new leaves and roots. Neck fall is the indication of maturity of onions. Although, exact time of harvesting depends on several factors such as planting season, variety/cultivar, market price and also the condition of the crop. If you want to store the onions, then ensure that all the onions are fully developed before harvesting. The onions are generally harvested by hand through pulling the bulbs (if the soil is light). Its very difficult to tell the exact number. Because exact exact amount of yield depends on numerous factors. Generally, you can expect between 25 and 30 tonnes per hectare. Marketing of onions is very easy. This is a very good advantages of commercial onion farming business. You can sell to local wholesale stores or retail stores or you can even sell in government market yards. These are the common steps and ways for starting and operating a successful onion farming business. Hope this guide has helped you! Good luck! Facebook Twitter LinkedIn

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