

## Market Analysis for 8th Global Summit on Plant Science

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For the lifting off of [plant science](#) in Europe, the 2019 global market is arguably an eminent and discernible one. Plants are the most important requirement for a stable and sustainable food chain. In terms of both agriculture and oxygen, it affects human life. Agriculture is expected to be the world's largest industry and is estimated to increase food demand by around 62% by 2050. Plant Science is an increasingly important area of science that has expanded in recent years due to the development of advanced technologies and methods. An understanding of plant Science is a prerequisite for advanced [plant breeding](#) and crop improvement. An in-depth knowledge of plant Science helps researchers to enhance production, confer resistance or tolerance to adverse conditions and improve crops. The recent advances in plant Science and bioinformatics have had a significant impact on plant science and genetics. New methods and technology have led to a greater understanding of both [structural genomics and functional genomics](#). Plant Science generates opportunities to create crops with improved traits.

The hugeness of plants in human life is noteworthy. Plants and plant items are fundamental for us. Sustenance, vitality, solution thus numerous things we can get from plants. This meeting looks to bring all such researcher, Noble Laureate, scientist, examine researcher, understudies and individuals together who are engaged with this field and give them to talk about their development, trade thoughts and connection with each other.

### Recent Development of Plant-Based Vaccines:

Conventional vaccines are being widely used in the world, but their production requires higher cost, more time and better infrastructure. Thus, the idea of plant-based edible vaccine technology has emerged and showed promising results with strong and effective protection against many diseases. Plants have been utilized since more than two decades as pharmaceuticals against many diseases.

### Importance and Scope

There has been a tremendous growth in the plant biotechnology sector owing to the development of technological advances and enormous genomic resources. Plant Science has evolved as a discipline of its own, comprising sub-disciplines like proteomics, metabolomics, bioinformatics and systems. The collaborative efforts of researchers worldwide have accomplished the mammoth tasks of sequencing the entire genomes of important plants and deciphering the functional aspects is underway. Right from the

understanding of structure and functioning of large genomes of plants to the development of methods to manipulate them for benefit of mankind, plant Science provides researchers with the essential tools for the purpose.

The genetic supply industry will try to satisfy the growing demand by increasing the yield and quality of grain produced, possibly making an expanded acreage unnecessary. Yield increases over the past 45 years suggest that optimism is not unreasonable. During that time the population doubled, yield on the best land tripled, while acreage remained static. The feed-to-meat conversion efficiency also doubled, it now takes only 4 pounds of grain to produce 1 pound of pork, and further increases in this efficiency can be expected to contribute to future increases in productivity. Although it costs more to produce today's high yields, wealth has increased faster than the costs. Food accounts for half as much of our income today (11%) as it did 45 years ago. Past gains in productivity were achieved by improved mechanization and agricultural chemicals, in addition to genetic improvements. Future gains will depend increasingly on genetics, with some sectors of the agricultural chemical industry being replaced by genetics (e.g., insecticides and fungicides). It is encouraging to note that at the same time productivity was tripling soil erosion per ton of food produced was cut by two-thirds.

Plant science will accelerate the application of gene technology to [agriculture](#). As previously described, this technology will enhance food security, by increasing productivity, and food safety, by eliminating mycotoxins. There is a third benefit, derived from the first two: increased wealth. By accelerating the application of technology, Plants significantly increases the value of seeds and agricultural products. This increase adds much wealth to the customers, company owners, employees, and citizens of the nations in which genetic supply companies operate, and to both producing and importing nations whose food costs consequently are decreased.

### Current challenges and future perspectives of plant and agricultural biotechnology

1. Advancing structural genomic research to next-level by making finished physical maps publicly available for most of the economically important plants.
2. Assigning function to genes and regulatory sequences by utilizing high-throughput functional genomics research under target environmental conditions.
3. Development of crop specific high-resolution genetic maps tightly linked to agronomic traits of interest.
4. Efficient tools, smart computational techniques and cyber infrastructure for high-throughput genotyping

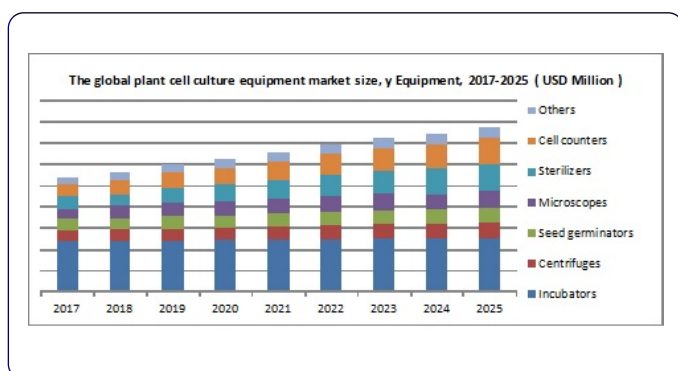
integrated to phenotyping under field conditions for the target traits.

## Target audience

The target audience will be plant and agricultural associations, plant physiologists, plant microbiologists, plant biotechnologists, [plant genomics](#) students and scientist, plant Science researchers and faculty, business entrepreneurs, and the manufacturing companies of agricultural products.

## Industry Insights

The global plant cell culture equipment market size was valued at USD 395.5 million in 2017. It is anticipated to register a CAGR of 13.1% from 2018 to 2025. Rising applications of cell and tissue cultures and increasing R&D in the field of cell and tissue engineering are spurring market growth.



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Plant cell culture is a collection of different techniques that are used to grow or maintain plant cells in a sterile environment on a nutrient culture medium of known composition. Increasing adoption of plant cell culture equipment in horticulture, forestry, and plant sciences is anticipated to boost market expansion over the forecast period.

Global demand for agriculture is increasing rapidly due to rising need to grow high-yielding crops to meet the food demand. According to a study conducted by the Intergovernmental Panel on Climate Change (IPCC) in 2016, the increased frequency of extreme weather events and global warming would adversely affect the livestock, crop, forestry, and aquaculture productivity in the years to come.

The global population is projected to surpass 9 billion by 2050 and it would be a challenge to ensure adequate crop production to meet the food demand. This would lead to new potential opportunities for crop improvement and plant science. Growing awareness about the benefits of plant culture in improving crop quality and yield is also positively impacting their domestic consumption.

## Meet your target market

The peoples from around the globe are focusing on learning the overview and techniques of plant Science. So here is the

opportunity to reach the largest group of participant from around the world for grasping the knowledge of different field on a single platform. The conference will conduct Keynote presentations, Oral talks (Speaker forum and Young research forum), Poster presentations, Workshops and Exhibitions and receive a participation certificate at the 2 days event.

## Market Research in Europe

France (Europe) is the sixth largest farmer in the world and accounts for one third of all EU agricultural activities. In Europe, the Common Agricultural Policy (CAP) and the Uruguay Round of the General Tariff and Trade Agreement were enacted. A lot of improved reforms in the plant and agricultural sector were noticed in Europe as a result of this implementation.

More than half of the EU's seed and Plant Reproductive Material (PRM) market is led by Germany, France and Italy. This PRM market is the third largest market in the world. The EU plant science seed market reached around £7bn in 2012. Europe delineates about 20% of the global market. In the EU there are about 7000 seed companies employing 50,000 people mostly from France, the Netherlands, Romania, Poland, Germany and Italy.

It was also expected that the plant - based protein market would grow at a sinewy rate worldwide. During periods 2012 - 2017, the plant - based protein market is experiencing remarkable growth.

To reflect a market value of about £13.18, it is expected to grow at a CAGR value of 5.7% throughout the prediction period.

## About Berlin

Built on sand on around the banks of the river Spree, Berlin has been one of Europe's most influential economic, cultural and political centers - for better or worse - since its origins as a trading post in the 13th century. It was capital of both the Prussian and the German Empire until World War I uprooted the Hohenzollern dynasty, which had ruled since the 15th Century When people think of Berlin, the first thing that usually comes to mind is its most famous landmark the Brandenburg Gate. For decades a symbol of division, the monument has always been the beating heart of a major city bursting with ideas, inspiration, art, culture and creativity. Highlights in the western parts of Berlin include the Kurfürstendamm, as elegant a shopping street as you'll find anywhere, the Kaufhaus des Westens department store (better known as KaDeWe), on-trend boutiques and exclusive galleries, as well as beautiful residential streets and, of course, Berlin's famous nightlife. And speaking of nightlife, no trip to Berlin would be complete without an evening at Friedrichstadt Palast, Germany's leading variety theatre. With the current production, SHOW ME, the Palast is said to have mounted the most expensive and dazzling stage show of all time. This Berlin spectacle is the very height of glamour – an explosion of light, colours, costumes and special effects. The cosmopolitan vibe

also permeates the government district, which spreads out to the east from Brandenburg Gate and from the neighbouring Reichstag. There's a sense of peace and freedom in the air here – in stark contrast to the days when Berlin was responsible for unthinkable crimes. Berlin's population is 3.4 million down from 4.5 million before WW2. It is a vast city, extending over 889 square kilometers. Its twelve bezirke (boroughs) are Mitte, Friedrichshain-Kreuzberg, Pankow, Charlottenburg-Wilmersdorf, Spandau, Steglitz-Zehlendorf, Tempelhof-Schöneberg, Neukölln, Treptow-Köpenick, Marzahn-Hellersdorf, Lichtenberg, Reinickendorf, although many Berliners still use old names and districts for purposes of orientation.

## Asia

Developing nations of Asia have come a long way since the food crises of the 1960s. Over the last 30 years, higher productivity gains have been achieved, thanks to agricultural technologies such as high yielding varieties of rice and wheat, chemical inputs, irrigation, and improved cropping systems. Between 1970 and 1995, per capita gross domestic product increased by 190%, cereal production doubled, and calorie availability per person increased by 24% (Asian Development Bank [ADB], 2001). In 1975, one out of every two Asians lived in poverty. By 1995, this ratio fell to one in four.

Many Asian governments—including China, India, Indonesia, Malaysia, Philippines, Thailand, and Vietnam—have given high priority to plant biotechnology research in the hope of addressing the pressing challenges related to improving productivity, farmers' livelihoods, driving rural development, and meeting food security demands.

## USA

Decades of documented evidence demonstrates that agricultural biotechnology is a safe and beneficial technology that contributes to both environmental and economic sustainability. Farmers choose biotech crops because they increase yield and lower production costs. Farmers get a greater financial return while using more environmentally friendly farming practices through the use of agricultural biotechnology.

U.S. farm income benefits from 1996-2007 are estimated at nearly \$20 billion resulting from enhanced productivity and efficiency gains from agricultural biotechnology.

Herbicide Reduction Biotech varieties have dramatically reduced farmers' reliance on pesticide applications: Since 1997, the use of pesticides on global biotech crop acreage has been reduced by 790 million pounds, an 8.8 percent reduction. Biotech Crops: Evidence, Outcomes and Impacts 1996-2007: Focus on Environmental Impacts. Through biotechnology, more specialized herbicides have been replaced by a smaller number of safer, broad spectrum compounds with reduced environmental impacts.

## UK

UK's position as a world leader in **plant science** is under threat from a shortage of funding and a lack of stable investment in essential skills. It lays out urgent actions needed to ensure the UK can respond to significant global challenges such as guaranteeing food security, coping with the threats from climate change, protecting biodiversity, and improving human health. The UK is internationally recognized for its excellence in plant genomics. It has world-leading fundamental plant genomics research that contributes to a diverse range of key industries including **agriculture**, pharmaceuticals, forestry and industrial biotechnology. A very recent development in the UK has been the opening of the Sainsbury laboratory which will house 120 scientists working on topics in plant development.

### Major Plant science Associations and related Societies

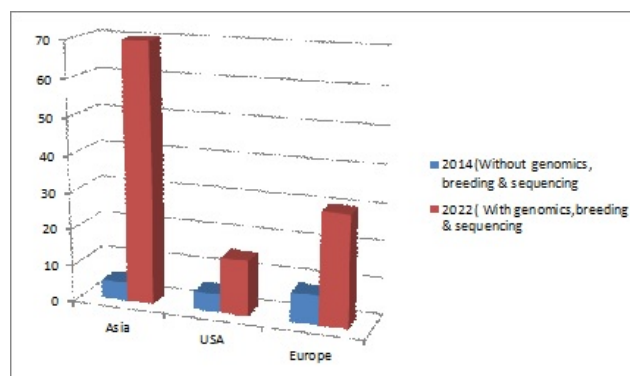
- American Society of Plant Biologists (ASPB)
- Australian Society of Plant Scientists (ASPS)
- Korean Society of Plant Biologists (KSPB)
- Committee of Professional Agricultural Organizations (COPA)
- General Committee for Agricultural Cooperation in the European Union (COGECA)
- European Commission on Agriculture (ECA)
- Argentinean Society of Plant Physiology (SAFV)
- American Society of Agronomy (ASA)
- African Crop Science Society (ACSS)
- Brazilian Society of Plant Physiology (SBFV)
- Botanical Society of China (BSC)
- Canadian Society of Plant Biologists (CSPB)
- Chile's National Network of Plant Biologists (CNNPB)
- Chinese Society of Plant Biology (CSPB)
- Crop Science Society of America (CSSA)
- Crop Science Society of China (CSSC)
- European Association for Research on Plant Breeding (EUCARPIA)
- European Plant Science Organization (EPSO)
- Federation of European Societies of Plant Biology (FESPB)
- Genetics Society of China (GSC)
- International Society of Plant Pathology (ISPP)
- Indian Society of Plant Physiology (ISPP)
- International Crop Science Society (ICSS)
- International Society for Horticultural Science (ISHS)
- Irish Plant Scientists' Association (IPSA)
- International Society for Plant Molecular Biology (ISPMB)
- Japanese Society for Plant Cell and Molecular Biology (JSPCMB)
- Japanese Society of Plant Physiologists (JSPB)
- Korean Society of Plant Biologists (KSPB)
- New Zealand Society of Plant Biologists (NZSPB)
- American Society of Agronomy
- Crop Science society of America
- Soil science Society of America
- Genetic Society of America
- National Association of plant Breeds
- National Science Foundation
- National Institute of Plant Genome Research

- Australian Society of Plant Science
- Royal Society of Plant Genomics Genetics and Breeding Executive Committee
- Federation of European Neuroscience Societies
- Institute of Genetics and Developmental Biology Chinese Academy of Science
- New Zealand Society of Plant Biologists
- Center of Plant Structural and Functional Genomics
- Botanical Society of China
- Australian Society of Plant Scientists
- Australian National University
- Argentine Society of Plant Physiology
- ARC Centre of Excellence in Plant Energy Biology
- American Society of Plant Biologists
- African Crop Science Society
- Canadian Society of Plant Biologists
- Center for Plant Aging Research, Institute of Basic Science
- Chilean Society of Plant Biologists
- Chinese Society for Plant Biology
- Crop Science Society of China
- European Plant Science Organization

#### Plant Science Companies / Industries

- Bioorient Biotechnology
- Analytik Jena AG
- BIUTEC Biotechnology and Environmental Engineering R & D Ltd
- Agricultural Industries Confederation (AIC)
- Intravision Group AS
- Clean Biotech S.L.L
- Lida Plant Research S.L
- Yamato Scientific America Inc
- Acta Group
- Ficosterra

- Novozymes
- Labquip Projects Limited
- Belgis Biotech Laboratories
- Tosoh Bioscience LLC
- Tosoh Bioscience LLC
- Lucerne biotech Ltd
- Global Nutritech
- SusChem
- BioPlanta GmbH
- Libios
- Tap Trap
- Bioclear earth b.v.
- Organica Biotech Pvt. Ltd
- AgBiome Inc
- American Agricultural Services Inc



Graphical representation of Plant Breeding between 2014 to 2022