



Bayer

Access to Seeds Index

Corporate Data
Headquarters: Monheim am Rhein, Germany
Ownership type: Listed
Group revenue (2014): EUR 9,494,000,000

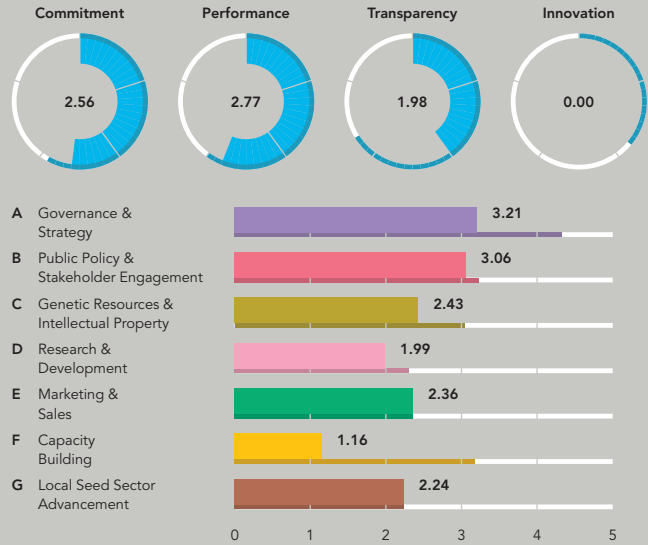
Bayer AG (Bayer) is active in the seeds, crop protection and non-agricultural pest control segments. It offers seeds and traits for cotton, vegetables and field crops through its operations in Europe, North America, Latin America, Africa, Asia Pacific and the Middle East. Crop-breeding and seed activities were added in 2002, following the acquisition of Aventis CropScience AG.

3
rank out of 7
score 2.32

Global Index – Field Crop Seed Companies

As one of the best performers, ranking third out of seven field crop seed companies, Bayer exhibits multiple strengths in improving access to seeds for smallholder farmers. It articulates a commitment to global food security, a specific commitment to smallholder

farmer development and senior-level responsibility for the implementation of these commitments. It contributes actively to public gene banks and outperforms its peers on the development of the local seed sector.

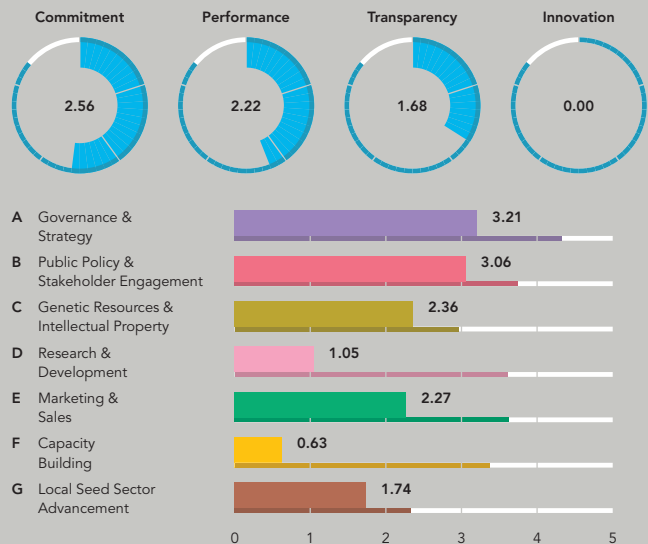


3
rank out of 10
score 2.00

Global Index – Vegetable Seed Companies

Bayer ranks third out of ten vegetable seed companies, displaying a number of strengths in improving access to seeds for smallholder farmers. It is a member of several multi-stakeholder initiatives that focus on increasing food security and addressing constraints

to agriculture-led growth for smallholder farmers in Asia and Africa. It has established long-term partnerships with public gene banks for the conservation, characterization and maintenance of vegetable germplasm.



Leading Practices

■ Bayer discloses a commitment to global food security, a specific commitment to smallholder farmer development and assigns responsibility to its CEO and executives for the implementation of these commitments.

■ The company is a member of several multi-stakeholder initiatives, such as the German Food Partnership (GFP) and the New Alliance for Food Security and Nutrition, which aim to increase food security in developing markets and address constraints to agriculture-led growth for smallholder farmers.

■ The company's vegetable seed segment has long-term partnerships with public gene banks, including AVRDC in Taiwan, CGN in the Netherlands, HRI in the UK, INRA in France and USDA/ARS in the USA, which it supports in the

maintenance and characterization of ex situ collections. It has also provided financial support for collection missions, for example for spinach and bean germplasm. The company's field crop seed segment has a long-term partnership with the International Rice Research Institute (IRRI), which has a large rice gene bank.

■ As part of its Much More Rice (MMR) program, the company offers an MMR solutions box. This combines MRR products in one box in quantities sufficient to farm one hectare of land in Vietnam and India and one acre in Ghana.

■ The company performs variety trials for Index field crops in 11 of the 23 Index countries where it is active, incorporating local knowledge and feedback into its breeding programs.

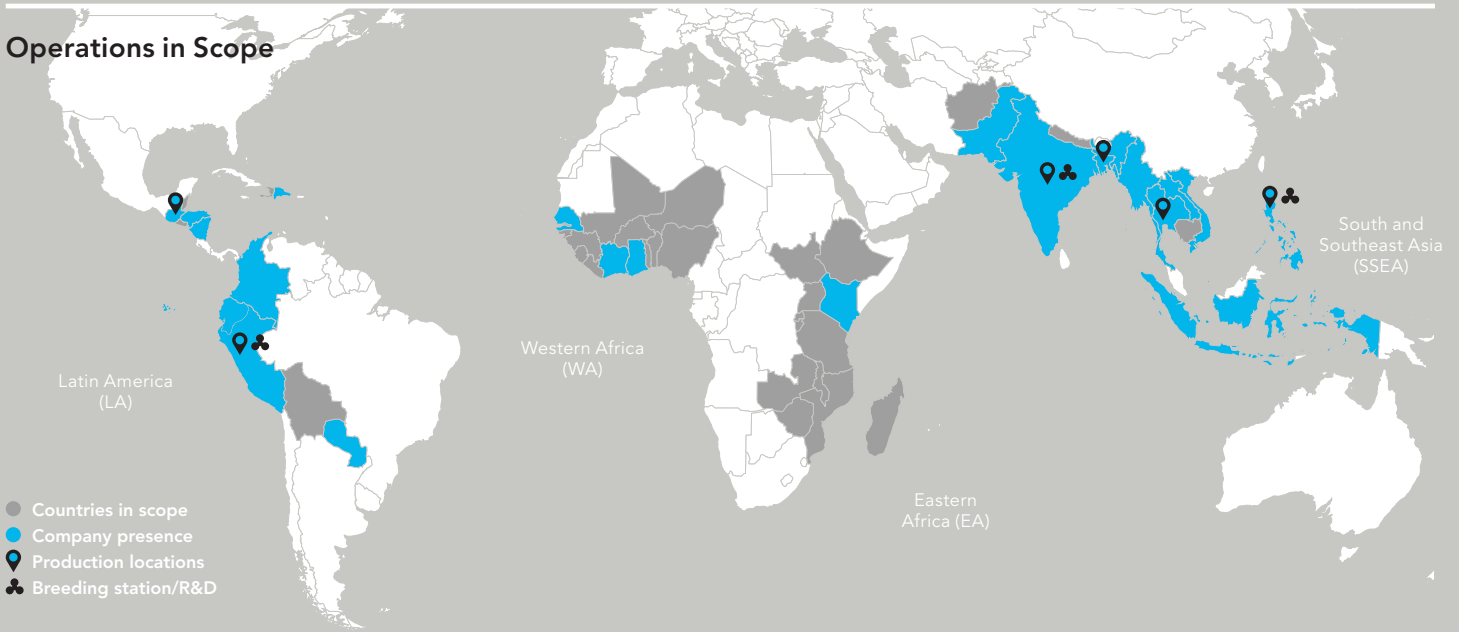
Areas for Improvement

■ Bayer has a general statement addressing the development of the local seed sector, but it could consider articulating a formal commitment.

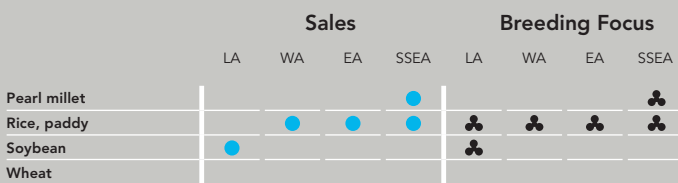
■ The company has established distribution channels in 21 Index countries, spread over all regions, with emphasis on Latin America and South and Southeast Asia. It is encouraged to expand distribution to other Index countries in which it has operations and to remote areas.

■ The company co-founded the Asian-German Better Rice Initiative (AGBRI), which provides smallholder farmers with education and advisory services, management skills and agricultural know-how, and access to modern technologies. These activities cover Indonesia, the Philippines, Thailand and Vietnam, but the company is encouraged to disclose information on the number of smallholder farmers reached.

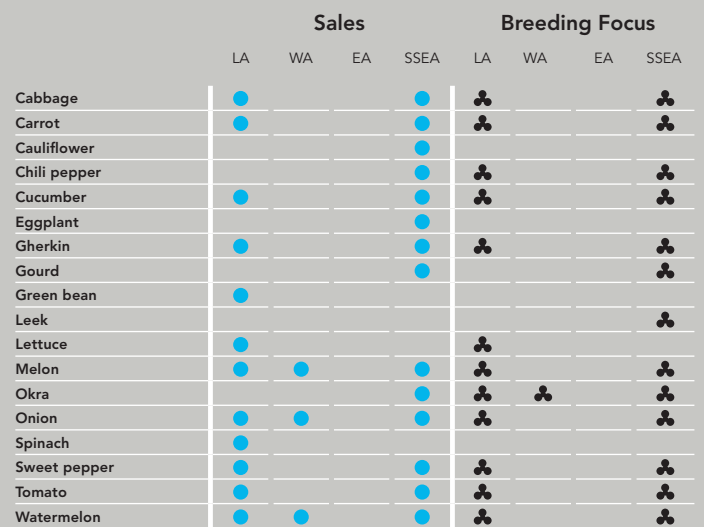
Operations in Scope



Index Field Crops in Portfolio



Index Vegetable Crops in Portfolio



Notable Findings

■ Bayer's Code of Conduct for Responsible Lobbying sets out clear and binding rules for involvement in political matters. The Bayer Public and Governmental Affairs Committee is responsible for strategic planning of political involvement. The company states that it is logged in every transparency register set up by governments, regardless of voluntary or mandatory requirements.

■ The company supports the International Union for the Protection of New Varieties of Plants (UPOV) as well as the patenting of varieties. It also supports the patenting of inventions related to native traits, provided that such inventions comply with patentability criteria such as novelty, inventive step, industrial applicability and sufficiency of disclosure. Similarly, it supports the breeders' exemption in plant variety protection (PVP) laws, provided this does not negatively affect the company's stewardship and regulatory compliance obligations. The company mainly supplies F1 hybrids in Index countries, making farm-saved seeds an unattractive option for farmers.

■ The company uses biotechnology in plant development and specifies that tools such as marker-assisted breeding and genetic modification can be used to make plants more resistant to pests and environmental stress conditions. It develops hybrid rice varieties that are better able to withstand diseases, insect pests, prolonged submergence and high salt-water conditions, thus accounting for biotic and abiotic stress. The company has early stage research transgenic rice and soybean in its portfolio and markets one GM soybean product in Paraguay.

■ The company states that up to 40,000 local farmers in India are involved in rice seed production on its behalf.

■ The Bayer Code of Conduct commits the company to responsible marketing & sales. To ensure quality and safety, the international FAO Code of Conduct and regulatory standards for biotechnology products of OECD countries apply.

■ The Bayer Supplier Code of Conduct sets forth the company's sustainability principles, including fair labor conditions in the production of seeds in Index countries. The code requires suppliers to observe occupational health & safety rules, respect human rights and not to employ child labor in any form. It also addresses forced labor, living conditions and minimum wages.

■ Bayer has launched initiatives under its Food Chain Partnership in Guatemala, India and Kenya to develop value chains and work on integrated crop solutions.