

Alexander J. Stein

Publications and presentations (October 2011)

→ Please feel free to contact me with reprint requests if you cannot obtain the articles elsewhere.

Journal articles (15 contributions)

- Stein AJ (2010). "Global impacts of human mineral malnutrition." *Plant and Soil* **335**: 133-154.
<http://dx.doi.org/10.1007/s11104-009-0228-2>
- Stein AJ, Rodríguez-Cerezo E (2010). "Low-level presence of new GM crops: an issue on the rise for countries where they lack approval." *AgBioForum* **13**: 173-182.
<http://www.agbioforum.org/v13n2/v13n2a08-cerezo.htm>
- Stein AJ, Rodríguez-Cerezo E (2010). "International trade and the global pipeline of new GM crops." *Nature Biotechnology* **28**: 23-25. <http://dx.doi.org/10.1038/nbt0110-23b>. Supplementary Notes
http://www.nature.com/nbt/journal/v28/n1/supinfo/nbt0110-23b_S1.html
- Sinemus K, Stein AJ (2010). [de] "Green biotechnology: communication as response to complexity." *VDL-Journal* **4/2010**: 4-5. http://www.vdl.de/Journal_Digital/Schwerpunkt/2010/08/Artikel_3.php
- Qaim M, Stein AJ (2009). [de] "Biofortification of staple crops: how well does it work and what does it cost?" *Ernährungs-Umschau* **56**: 274-280.
<http://www.ernaehrungs-umschau.de/archiv/summaries/?id=3858>
- Stein AJ, Meenakshi JV, Qaim M, Nestel P, Sachdev HPS, Bhutta ZA (2008). "Potential impacts of iron biofortification in India." *Social Science & Medicine* **66**: 1797-1808. <http://dx.doi.org/10.1016/j.socscimed.2008.01.006>
- Stein AJ, Sachdev HPS, Qaim M (2008). "Genetic engineering for the poor: Golden Rice and public health in India." *World Development* **36**: 144-158.
<http://dx.doi.org/10.1016/j.worlddev.2007.02.013>
- Stein AJ, Matuschke I, Qaim M (2008). [de] "'Green' biotechnology for a poor rural population: experiences from India." *Geographische Rundschau* **4**: 36-41.
http://www.geographischerundschau.de/aktuell_inhalt-aktuelles-heft.php?bestellnr=51080400
- Qaim M, Stein AJ, Meenakshi JV (2007). "Economics of biofortification." *Agricultural Economics* **37**: S119-S133. <http://dx.doi.org/10.1111/j.1574-0862.2007.00239.x>
- Stein AJ, Qaim M (2007). "The human and economic cost of hidden hunger." *Food and Nutrition Bulletin* **28**: 125-134.
<http://foodandnutritionbulletin.org/FNB/index.php/FNB/article/view/1841>
- Stein AJ, Sachdev HPS, Qaim M (2007). "What we know and don't know about Golden Rice." *Nature Biotechnology* **25**: 624. <http://dx.doi.org/10.1038/nbt0607-624a>
- Stein AJ, Nestel P, Meenakshi JV, Qaim M, Sachdev HPS, Bhutta ZA (2007). "Plant breeding to control zinc deficiency in India: how cost-effective is biofortification?" *Public Health Nutrition* **10**: 492-501. <http://dx.doi.org/10.1017/S1368980007223857>
- Stein AJ, Sachdev HPS, Qaim M (2006). "Potential impact and cost-effectiveness of Golden Rice." *Nature Biotechnology* **24**: 1200-1201. <http://dx.doi.org/10.1038/nbt1006-1200b>. Supplementary Discussion http://www.nature.com/nbt/journal/v24/n10/supinfo/nbt1006-1200b_S1.html

Qaim M, Stein AJ (2006). [de] "How much does plant breeding help? The role of agricultural R&D in the fight against hunger and poverty." *eins Entwicklungspolitik* **15-16**: 49-52.
<http://www.entwicklungspolitik.org/fruehere-hefte/2006/15-16-2006/>

Zimmermann R, Stein A, Qaim M (2004). [de] "Agricultural technology to fight micronutrient malnutrition? A health economics approach." *Agrarwirtschaft* **53**: 67-76.
<http://www.gjae-online.de/inhaltsverzeichnis/pages/protected/show.prl?id=301>

Books, reports, monographs and book chapters (19)

Stein AJ (forthcom.). "Frontiers in improving nutrition for the poor: biofortification and alternatives." In: Herring R (ed). *Food, Politics and Society*. New York: Oxford University Press.

Stein AJ (2011). "Global impacts of human mineral malnutrition." In: Brar MS, Mukhopadhyay SS (eds). *Potassium role and benefits in improving nutrient management for food production, quality and reduced environmental damages*. Ludhiana: Swami Printers.
<http://india.ipni.net/articles/INNE0022-EN>

Stein AJ (2011). "Expected health benefits of IRRI's biofortification activities across Asia". *Analysis Report* for the International Rice Research Institute, Los Baños. Berlin: Genius GmbH.

Freitag C, Minol K, Stein AJ (2011). "Imports, labelling and consumer acceptance of conventional and GM crops in the EU". *Private client report*. Berlin: Genius GmbH.

Qaim M, Stein A (2011). [de] "Man shall not live by bread alone. Nutrient deficiency and the role of plant breeding." In: Zenner H-P (ed). Herausforderung Mensch: Energie, Ernährung, Gesundheit. *Verhandlungen der Ges. Dt. Naturforscher und Ärzte* **126**: 103-115. Stuttgart: Thieme. http://www.gdnae.de/de/start/aktivitaeten_und_angebote/versammlungen/dresden_2010.html

Stein AJ (2010). "The potential of biofortification of rice, beans, cassava and maize throughout Latin America". *Evaluation Report* for the International Food Policy Research Institute, Washington DC, 29p. http://www.ajstein.de/cv/Stein_IFPRI_biofortificationLatAm.pdf

N.N. (2010). "Annual Report 2009." Parma: European Food Safety Authority, 67p.
<http://www.efsa.europa.eu/en/keydocs/ar.htm>

Stein AJ, Qaim M (2009). [de] "Strategies to remedy micronutrient deficiencies." *Expert Opinion* for the Office of Technology Assessment at the German Parliament, Berlin, 106p.
<http://www.tab-beim-bundestag.de/en/publications/reports/ab142.html>

Stein AJ, Rodríguez-Cerezo E (2009). "The global pipeline of new GM crops: implications of asynchronous approval for international trade." *JRC Technical Report EUR 23486 EN*. Luxemburg: European Commission, 112p. Related *JRC press release*.
<http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=2420>. http://ec.europa.eu/dgs/jrc/index.cfm?id=1410&obj_id=8540&dt_code=NWS

Stein AJ, Qaim M, Nestel P (2009). "Zinc deficiency and DALYs in India: impact assessment and economic analyses." In: Preedy V, Watson RR (eds). *Handbook of disease burdens and quality of life measures*. Heidelberg: Springer-Verlag.
<http://www.springer.com/medicine/book/978-0-387-78665-0>

Stein AJ, Rodríguez-Cerezo E (eds) (2008). "Plant molecular farming." *JRC Technical Report EUR 23383 EN*. Luxemburg: European Commission, 146p.
<http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=1979>

- Stein AJ, Rodríguez-Cerezo E (2008). "Functional food in the European Union." *JRC Technical Report EUR 23380 EN*. Luxembourg: European Commission, 74p. <http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=1719>
- Papatryfon I, Zika E, Wolf O, Gómez-Barbero M, Stein AJ, Bock A-K (2008). "Consequences, opportunities and challenges of modern biotechnology for Europe." *JRC Technical Report EUR 23413 EN*. Luxembourg: European Commission, 235p. <http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=1640>
- Stein AJ, Rodríguez-Cerezo E (eds) (2007). GMCC: Third international conference on coexistence between genetically modified (GM) and non-GM based agricultural supply chains. *Book of abstracts*. Luxembourg: European Communities, 392p. <http://gmcc-07.jrc.ec.europa.eu/news.htm>
- Zika E, Papatryfon I, Wolf O, Gómez-Barbero M, Stein AJ, Bock A-K (2007). "Consequences, opportunities and challenges of modern biotechnology for Europe." *JRC Reference Report EUR 22728 EN*. Luxembourg: European Commission, 145p. <http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=1470>
- Qaim M, Stein AJ, Meenakshi JV (2007). "Economics of biofortification." In: Otsuka K, Kalirajan K (eds). *Contributions of agricultural economics to critical policy issues*. Malden, MA: Wiley-Blackwell. <http://www.blackwellpublishing.com/book.asp?ref=9781405181006&site=1>
- Stein AJ (2006). *Micronutrient malnutrition and the impact of modern plant breeding on public health in India: how cost-effective is biofortification?* Göttingen: Cuvillier Verlag, 145p. <http://www.ajstein.de/cv/biofortification.htm>
- Stein AJ, Meenakshi JV, Qaim M, Nestel P, Sachdev HPS, Bhutta ZA (2005). "Analyzing the health benefits of biofortified staple crops by means of the Disability-Adjusted Life Years approach: a handbook focusing on iron, zinc and vitamin A." *HarvestPlus Technical Monograph 4*. Washington DC: International Food Policy Research Institute (IFPRI), 32p. <http://www.harvestplus.org/content/analyzing-health-benefits-biofortified-staple-crops-means-disability-adjusted-life-years-app>
- Stein AJ, Donner J (eds) (2005). "Food for all: including GM food crops?" *Proceedings of a symposium on agricultural biotechnology, December 10, 2004*. Bonn: Deutsche Welthungerhilfe (German Agro Action), 39p. http://www.ajstein.de/cv/DWHH_GMfoodcrops.pdf
- Discussion papers, abstracts and other documents (14)**
- Ceddia MG, Stein AJ (2011). "Ecological and health effects of insect-resistant crops in small-scale agriculture of developing countries." *Research proposal* for a private foundation.
- N.N. (2011). "Bio-Economy." *Tender document* for a project on "Food, Agriculture, Fisheries and Biotechnology". Berlin: Genius GmbH.
- N.N. (2011). "Economic, social and political conditions for satisfying the world food needs." *Tender document* for a project on "Combining economic, social and environmental objectives in a European perspective: paths towards sustainable development". Berlin: Genius GmbH.
- N.N. (2010). "Technical offer." *Tender document* for "Services for communication activities". Darmstadt: Genius GmbH.
- Stein AJ, Rodríguez-Cerezo E (2009). "What can data on GMO field release applications in the USA tell us about the commercialisation of new GM crops?" *JRC Technical Note JRC 52545*. Luxembourg: European Commission, 11p. <http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=2419>

- Stein AJ, Rodríguez-Cerezo E (2009). "The global pipeline of new GM crops: introduction to the database." *JRC Technical Note EUR 23810 EN*. Luxembourg: European Commission. <http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=2199>
- Stein AJ (2008). "Asynchronous approval of GMOs by the EU and its trading partners: the global R&D pipeline of new GM crops." *Internal background document*. Sevilla: Institute for Prospective Technological Studies.
- Stein AJ (2008). "The potential role of agricultural technologies in mitigating climate change." *Internal briefing*. Sevilla: Institute for Prospective Technological Studies, 10p.
- Stein AJ, Rodríguez-Cerezo E (2008). "Mycotoxin contamination in the food and feed chain: potential impacts of improved agricultural technologies and practices on public health and EU trade." *Internal research proposal*. Sevilla: Institute for Prospective Technological Studies.
- Stein AJ (2008). "The impact and cost-effectiveness of biofortification." *Summary paper* of a technical consultation on "Micronutrient deficiencies: can agriculture meet the challenge?" FAO Regional Office for the Near East, December 11-13, Cairo, Egypt, 11p. http://www.ajstein.de/cv/Stein_FAO_biofortification.pdf
- Stein AJ, Rodríguez-Cerezo E (2007). "The potential of new agricultural technologies for reducing the socio-economic impact of mycotoxin contamination of food and feed." *Internal research proposal*. Sevilla: Institute for Prospective Technological Studies.
- Stein AJ, Sachdev HPS, Qaim M (2006). "Can genetic engineering for the poor pay off? An ex-ante evaluation of Golden Rice in India." *Research in Development Economics and Policy* 5, University of Hohenheim, 32p. <https://entwicklungspolitik.uni-hohenheim.de/74733.html>
- Stein AJ, Qaim M, Meenakshi JV, Nestel P, Sachdev HPS, Bhutta ZA (2006). "Potential impacts of iron biofortification in India." *Research in Development Economics and Policy* 4, University of Hohenheim, 36p. <https://entwicklungspolitik.uni-hohenheim.de/74733.html>
- Stein AJ (2003). "Determinants of micronutrient nutrition and the potential role of novel, food-based strategies in diminishing corresponding malnutrition: an economic analysis?" *Research proposal*. Center for Development Research (ZEF), Bonn, 24p. http://www.ajstein.de/cv/Stein_ZEF_researchproposal.pdf

Conference papers, invited presentations, panel discussions etc. (27)

- Stein AJ (2011). "Economic aspects and the impact of EU policies on GM crop production, an overview." *Invited presentation* at the IV. Eurobiotech Congress, October 12-15, Krakow, Poland. <http://eurobiotech.krakow.pl/>
- Stein AJ (2011). [de] "Opportunities and challenges of agricultural biotechnology for future food security." *Discussion forum* organised by the protestant advisory council, May 26, University of Magdeburg, Germany. http://hochschulbeirat-md.de/index.php?option=com_content&id=106
- Stein AJ (2010). "The global pipeline of new GM crops: implications of asynchronous approval for international trade." *Invited presentation* at a JRC workshop on socio-economic impacts of GM crops, November 4-5, Seville, Spain.
- Stein AJ (2010). [de] "Socio-economic criteria in the regulation of biotechnology and the approval of GMOs." *Invited presentation* at an evening with Parliamentary Assistants, organised by the German Association of Biotech Industries, October 27, Berlin, Germany.

- Stein AJ (2010). "Health economic analyses." *Invited presentation* at a workshop on "Ecosystem services to alleviate iodine, selenium and zinc malnutrition in sub-Saharan Africa", September 13-16, Lilongwe, Malawi.
http://www.ajstein.de/presentation/Stein_SummaryTalk_HealthEconomics.pdf
- Stein AJ (2010). "Farming for fitness: the economics of putting vitamins and minerals into staple crops." *Invited presentation* at a seminar of the Plant and Crop Sciences Division of the University of Nottingham, May 5, Loughborough, UK.
http://www.ajstein.de/presentation/Stein_Notts_2010.pdf
- Stein AJ (2009). "Global impacts of human mineral malnutrition." *Invited speaker* at the international symposium on "Potassium role and benefits in improving nutrient management for food production" of the International Potash Plant Nutrition Institutes, November 5-7, Bhubaneswar, India. <http://www.ipipotash.org/events/IPI+OUAT+IPNI+International+Symposium+2009.php>
- Stein AJ (2009). [es] "The role of new biotech cultivars in the future of agriculture and nutrition." *Invited presentation* at a seminar by the Ministry for Agriculture, September 16-18, Lérida, Spain. <http://www.mapa.es/es/desarrollo/pags/cursos/resultado.asp?codigo=224>
- Stein AJ, Rodríguez-Cerezo E (2009). "A review of the world's commercial pipeline of GM crops and implications for asynchronous approval and trade." *Paper* for the XIII. ICABR Conference on "The Emerging Bio-Economy", June 18-20, Ravello, Italy.
<http://www.economia.uniroma2.it/icabr/sarea.php?p=5&sa=85> (presentation)
http://www.economia.uniroma2.it/icabr/paper_view.php?id=421&p=5 (paper)
- Stein AJ, Rodríguez-Cerezo E (2008). [es] "Functional food in the European Union." *Short communication* at the Biotec 2008, September 17-19, Granada, Spain.
<http://www.biospain2008.org/>
- Stein AJ (2008). "The EU's first GM crop: its agronomic and economic performance." *Poster* for internal use. Sevilla: Institute for Prospective Technological Studies.
- Qaim M, Stein AJ (2008). "Economic consequences of Golden Rice." *Invited presentation* at the Fourth Conference of the European Plant Science Organisation, June 22-26, Toulon, France.
<http://www.epsoweb.org/event/epso-conference-2008-Toulon>
- Stein AJ (2008). [de] "Zinc saves healthy life years." Interview for *ZinkNews 7: 5*, Initiative Zink, Düsseldorf, Germany.
http://www.initiative-zink.de/fileadmin/downloads/Newsletter/ZN_Innovationen_web.pdf
- Stein AJ (2008). "Micronutrient malnutrition and biofortification." *Invited presentation* at the award ceremony for the Prize of the Friends of ZEF, April 21, Bonn, Germany.
http://www.zef.de/index.php?view=details_hp&pk=2002&id=199
- Stein AJ (2007). "The impact and cost-effectiveness of biofortification." *Invited presentation* at the technical consultation on "Micronutrient deficiencies: can agriculture meet the challenge?" of the FAO Regional Office for the Near East, December 11-13, Cairo, Egypt.
http://www.ajstein.de/presentation/Stein_FAO_2007.pdf
- Stein AJ (2007). [de] "The potential of agri biotech for developing countries." *Invited presentation* at a dialogue with German Members of Parliament, organised by the German Plant Breeders Association, September 20, Berlin, Germany.
http://www.ajstein.de/presentation/Stein_BDP_2007.pdf

- Stein AJ, Qaim M, Meenakshi JV, Nestel P, Sachdev HPS, Bhutta ZA (2007). "Biofortification, an agricultural micronutrient intervention: its potential impact and cost-effectiveness." *Poster* for the Micronutrient Forum, April 16-18, Istanbul, Turkey.
http://www.ajstein.de/cv/Stein_MNforum_biofortification.pdf
- Stein AJ (2006). [de] "The future of plant biotechnology: ethical challenges." *Panel discussion* in the framework of the "Green Gate Gatersleben", September 26, Gatersleben, Germany.
http://www.ajstein.de/presentation/Stein_Gatersleben_2006.pdf
- Stein AJ, Sachdev HPS, Qaim M (2006). "Potential impacts of Golden Rice on public health in India." *Contributed paper* at the 26th Conference of the International Association of Agricultural Economists (IAAE), August 12-18, Broadbeach, Australia.
<http://purl.umn.edu/25381>
- Qaim M, Stein AJ, Meenakshi JV (2006). "Economics of biofortification." *Plenary paper* at the 26th Conference of the International Association of Agricultural Economists (IAAE), August 12-18, Broadbeach, Australia. <http://purl.umn.edu/25584>
- Stein AJ (2006). "Potential impact and cost-effectiveness of Golden Rice in India: an ex-ante study." *Invited presentation* at the Golden Rice Humanitarian Board, May 2, Freiburg, Germany.
http://www.ajstein.de/presentation/Stein_GRHumBo_2006.pdf
- Stein AJ (2006). [de] "Plant biotech: opportunity or threat?" *Panel discussion* for a seminar of the Universities of Bremen and Kassel, January 13, Königswinter, Germany.
<http://www.international.uni-kassel.de/de/pdf/gentechnikflyer.pdf>
- Stein AJ (2005). "Micronutrient malnutrition: impact on labour productivity and loss in GDP." *Invited speaker* at the "Conference on Eradicating Micronutrient Malnutrition for Better Health and Higher Economic Growth" of the ILSI Institute, October 28-29, New Delhi, India.
http://www.ajstein.de/presentation/Stein_ILSI_2005.pdf
- Stein AJ, Meenakshi JV, Qaim M (2005). "Functional food for the poor: the potential impact of biofortification on public health in India." *Paper* for the "Conference on International Agricultural Research for Development", October 11-13, Stuttgart, Germany.
<http://www.tropentag.de/2005/abstracts/full/45.pdf>
- Stein AJ (2005). [de] "Biotech food: much ado about nothing?" *Panel discussion* for the West German Broadcasting Service, October 8, Solingen, Germany.
<http://www.lernzeit.de/sendung.phtml?detail=601019>
- Stein AJ, Meenakshi JV, Qaim M, Nestel P, Sachdev HPS, Bhutta ZA (2005). "Health benefits of biofortification: an ex-ante analysis of iron-rich rice and wheat in India." *Contributed paper* at the annual meeting of the American Agricultural Economics Association (AAEA), July 24-27, Providence, RI, USA. <http://purl.umn.edu/19468>
- Stein AJ (2004). "Ex-ante model for analysing health benefits of biofortification: the framework for beta-carotene." *Presentation* at the meeting of the International Vitamin A Consultative Group (IVACG), evening session. November 15-17, Lima, Peru.
http://www.ajstein.de/presentation/Stein_IVACG_2004.pdf
- Stein AJ (2004). "Health benefits of biofortification and the DALY framework for functional outcomes of iron and zinc deficiency." *Invited presentation* at a workshop on ex-ante impact assessment, International Food Policy Research Institute (IFPRI), October 19-21, Washington DC, USA.
http://www.ajstein.de/presentation/Stein_HarvestPlus_2004.pdf

Selected contributions to websites on agriculture, food and biotechnology

- Waste and losses contribute to food insecurity [de], May 2011,
<http://www.pflanzenforschung.de/journal/aktuelles/verschwendung-und-verluste-fuehren-zu-nahrungsknappheit>
- Temperatures up, yields down? [de], May 2011,
<http://pflanzenforschung.de/journal/aktuelles/temperatur-hoch-ertraege-runter>
- Looking beyond the EU: Biosafety South Africa, April 2011,
<http://www.gmo-safety.eu/basic-info/1318.biosafety-south-africa.html>
- Water for daily bread: irrigation in China [de], April 2011,
<http://pflanzenforschung.de/journal/aktuelles/wasser-fuers-taegliche-brot>
- Biodiversity and synthetic fertiliser, a successful team [de], December 2010,
<http://pflanzenforschung.de/journal/aktuelles/biodiversitaet-und-kunstduenger-ein-erfolgreiches-team>
- Maintenance breeding of agricultural crops [de], December 2010,
<http://pflanzenforschung.de/journal/aktuelles/was-dem-auto-die-inspektion-ist-den-nutzpflanzen-die-erhaltungszuechtung>
- Plant genetic engineering in Africa, November 2010,
<http://www.gmo-safety.eu/news/1242.disease-resistant-bananas-drought-tolerant-maize.html>
- New GM crops in the pipeline: "These are staple crops that Africans love to eat several times a day",
November 2010, <http://www.gmo-safety.eu/basic-info/1249.africa-genetically-modified-plants.html>
- Sustainability: origin and its significance for agriculture [de], October 2010,
<http://www.pflanzenforschung.de/journal/aktuelles/nachhaltigkeit-ursprung-und-bedeutung-fuer-die-landwirtschaft>
- EU biotechnology law: nationalisation of the GMO cultivation decision, August 2010,
<http://www.gmo-safety.eu/debate/1206.nationalisation-gmo-cultivation-decision-buck-passed-member-states.html>
- Zinc-rich wheat [de], August 2010, <http://www.pflanzenforschung.de/journal/aktuelles/nachhaltigkeit-ursprung-und-bedeutung-fuer-die-landwirtschaft>
- Tropical rice loves cool nights [de], August 2010,
<http://www.pflanzenforschung.de/journal/aktuelles/tropischer-reis-liebt-kuehle-naechte>
- Green Revolution [de], August 2010, <http://www.pflanzenforschung.de/wissen/forschung/gruene-revolution>