

GMO's en de agrosector

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Inhoud



- Introductie
- Toepassingen biotech in food en feed
- Mondiale ontwikkeling ggo-gewassen
- Posities key stakeholders EU (overheid, retail, industrie, ngo's)
- Ggo en relatie met 1e generatie biobrandstoffen
- Toekomstige ontwikkelingen

Productschap Margarine, Vetten en Oliën



- Belangenbehartigende organisatie voor verwerkers van en handelaren in oliezaden, plantaardige en dierlijke oliën en vetten
- Afzet: food, feed, oleochemie, energie
- Actief op de volgende terreinen:
 - Handelspolitiek
 - Marktonderzoek
 - Duurzame productie en grondstofvoorziening
 - Biobrandstoffen
 - Biotechnologie
 - Veterinaire aangelegenheden
 - Kwaliteit & Voedselveiligheid
 - Voeding & Gezondheid

Biotech applications in food and feed



Enzymes

α -amylase	bakery products, feed
chymosin	cheese
glucose isomerase	drinks
lipase	fats and oils, feed
protease	bakery products, brewing, feed
phytase	feed

Biotech applications in food and feed (ingredients)



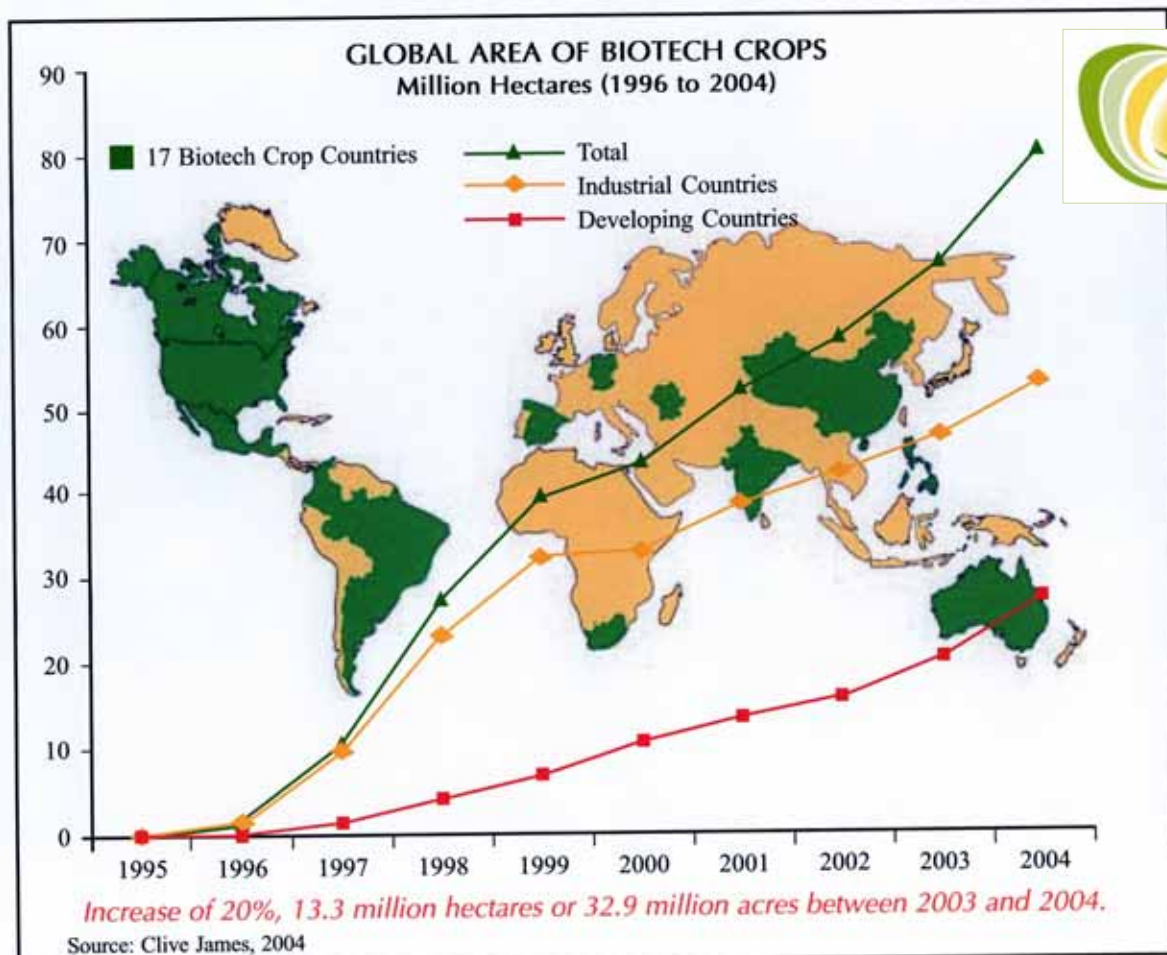
Main crops:

Soybeans: oil, protein, lecithin, meal

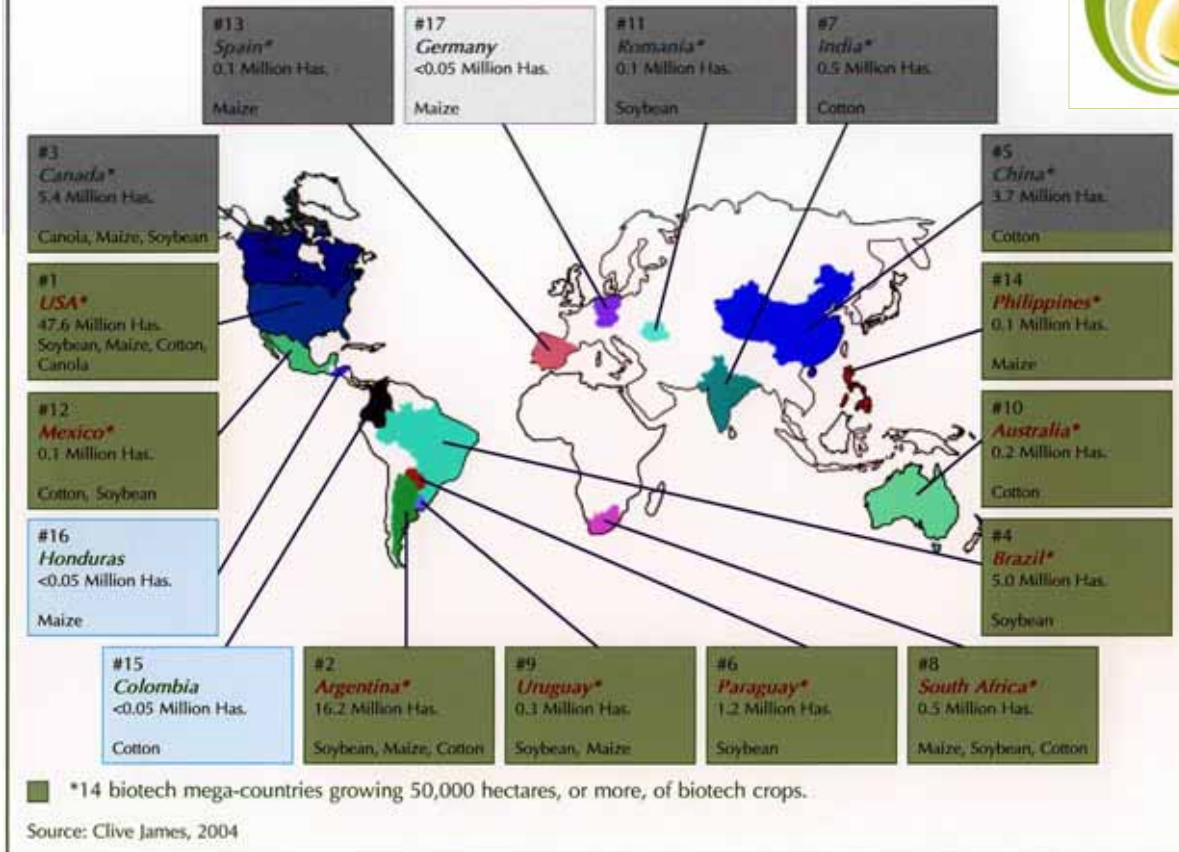
Rapeseed (canola): oil, meal

Maize: oil, starch, etc

Cotton: food and non food applications



Biotech Crop Countries and Mega-Countries*, 2004



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Situation EU, general picture



- Very strict legislation for gm food and feed
- Need for innovation recognized, key role for biotechnology
- Focus on 'white' and 'red' biotechnology
- 'Green' biotechnology still not very popular

Biotech food: key players (1)



Governments in EU

- Stimulate biotech research
- Stimulate starters / incubators
- No / few product approvals
- No / few approvals for field trials
- Confusion

Biotech food: key players (2)



Environmental organisations

- Majority opposed to GM crops, not to contained use
- Proved a big hit in Europe
- No room for stakeholders dialogue and negotiations
- A fear campaign
- After 10 years: less impact

Biotech food: key players (3)



Consumer organisations

- At the start a balanced approach to biotech
- Shouted down by media and E.O.'s
- No proven consumer benefits
- Focus on consumer choice

Biotech food: key players (4)



Retail and industry in EU

- No / little direct interest in g.m. soy and maize
- Fear, opportunism
- Choice is fundamental right of consumers
- Food industry very limited use of gm ingredients
- Feed industry big user of gm ingredients

Biotech food: differences (1)



UK

- Successful introduction of Zeneca's g.m. tomato paste
- BSE - history
- Influence tabloid press
- Prince Charles / Frankenstein Food
- PR - campaign Monsanto
- Domination of debate by environmental NGO's
- Fierce reaction retail

Biotech food: differences (2)



NL

- Balanced approach Consumentenbond
- Extended media communication programme with introduction of soy
- No tabloids
- Partly successful stakeholders dialogue
- More balanced attitude by retailers (Albert Heijn)

Biotech: level of acceptance



	Non-Food	Feed	Food	Pharmaceuticals
Micro-organisms / Enzymes	+	+	+	+
Plants	±	±	-	+
Animal			-	±

Witte biotechnologie (non food)



Vision paper on white biotechnology

Belangrijk onderdeel 7e EU-kaderprogramma

Biotechnologie:

- Duurzame chemie, materialen
- Tweede generatie biobrandstoffen
- Enzymen goedkoper

→ Betrokkenheid ngo's organiseren

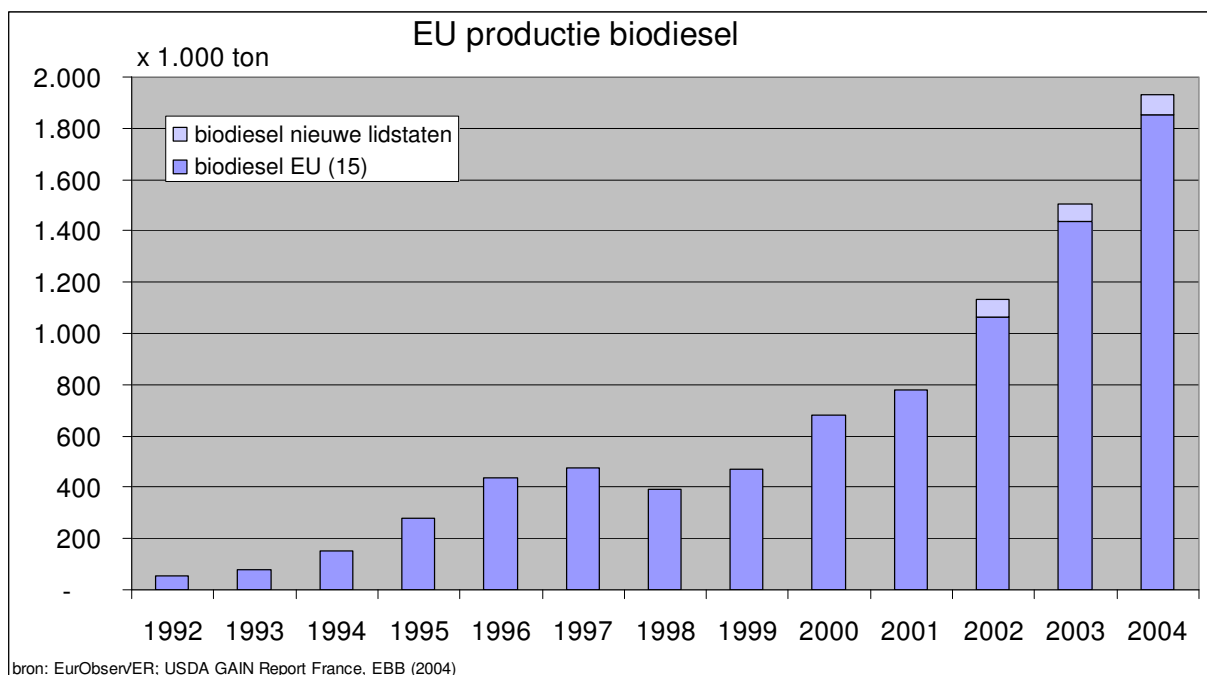
Eerste generatie biobrandstoffen



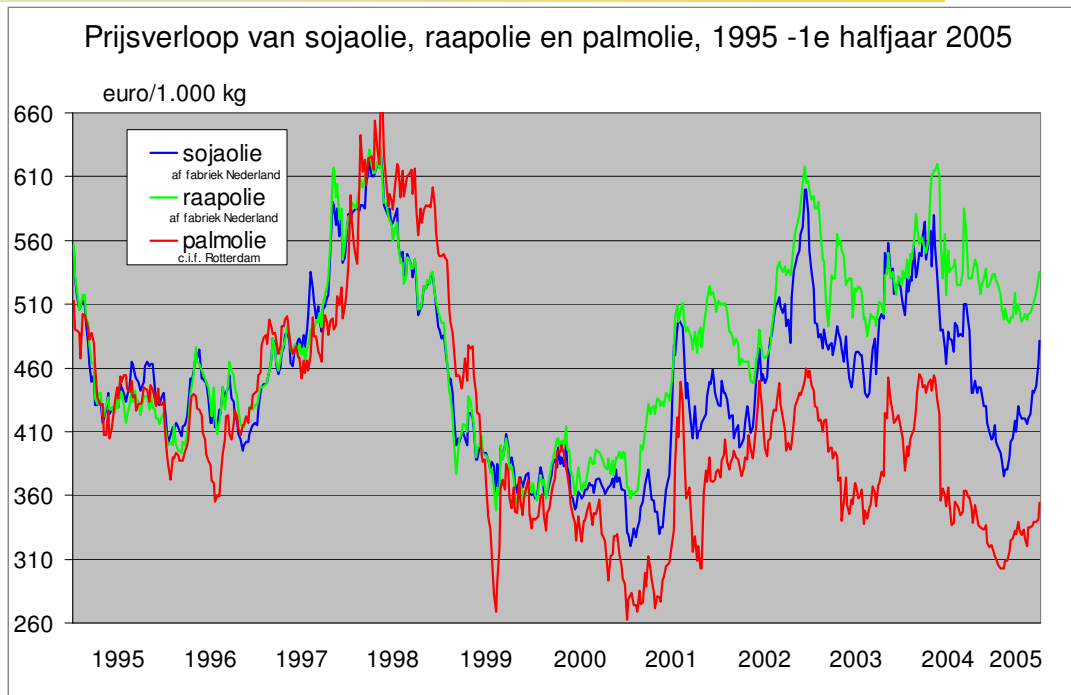
Issues:

- Mate van CO₂-reductie
- Duurzaamheid grondstoffen
- Beschikbaarheid grondstoffen (food – non food)

EU productie biodiesel



Prijzontwikkeling plantaardige olie



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Ontwikkelingen



- Grotere inzet van soja-olie en canola in biodiesel
- Beiden afkomstig van GM-crops
- Directe relatie GM – biobrandstoffen
- Verruiming EU-biodieselstandaard
- Verdere groei 1ste generatie biobrandstoffen voorzien
- Stimulering vanuit EU
- Aanpassingen EU-landbouwbeleid
- Invoering duurzaamheidscriteria voor grondstoffen

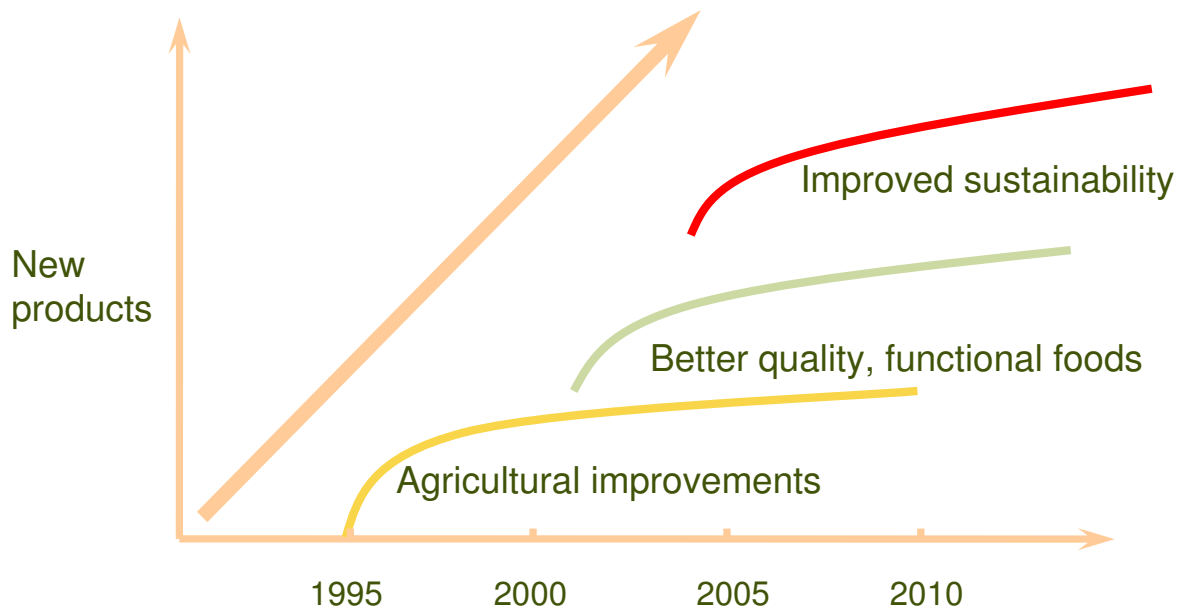
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Innovatie



Three generations g.m. crops



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Tot slot



- Inzet van gmo-grondstoffen voor biobrandstoffen zal maatschappelijke vragen oproepen en biedt ook kansen
- Bereid u hierop voor!
analyseer ontwikkelingen gm crops
inventariseer opinies key stakeholders (overheid, ngo, keten)
bepaal strategie

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