Experiences with applications for exotic BCA's in Spain

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Regulation in practice

- Spain as an example for Southern European situation
- Regulation in place since 2002
- Important greenhouse industry:
  35.000 ha

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Regulatory framework Spain

- Phytosanitary law: Ley 43/2002 article 44
  - **Native** organisms: notification Ministry of Agriculture
  - **Exotic** organisms: authorisation Ministry of Agriculture after approval of Dpt of Environment

- Plant Protection Product regulation: R.D. 951/2014
  - Requirements (Annex 1A, 1B) general, including efficacy trials
  - Exemption from data requirements agreed, not official

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GOBIERNO DE ESPAÑA
MINISTERIO DE AGRICULTURA, ALIMENTACIÓN Y MEDIO AMBIENTE

Procedure

- Application to be send to Ministry of Agriculture
  - Data requirements not specified
- Consultation Dpt of Environment
- Trial permit granted
- Submission of trial report
- Again consultation Dpt of Environment
- Approval Ministry of Agriculture

REGISTRO DE PRODUCTOS Y MATERIAL FITOSANITARIO: OTROS MEDIOS DE DEFENSA FITOSANITARIA(OCB)
Conforme al Real Decreto 951/2014, de 14 de noviembre.

OCB: Organismo de Control Biológico. OUON : Organismo útil de otra naturaleza. OCBE: Organismo de Control Biológico Exótico.
OP: Polinizador. PR: Planta reservorio.

Examples:
4 predatory mites against whitefly, thrips:

Amblyseius swirskii

Eastern Mediterranean

Exotic?

Amblyseius montdorensis

Australia

Amblydromalus limonicus

US, New Zealand

Euseius gallicus

France, NL, Tunisia

Exotic?

-> different characteristics

-> different niches

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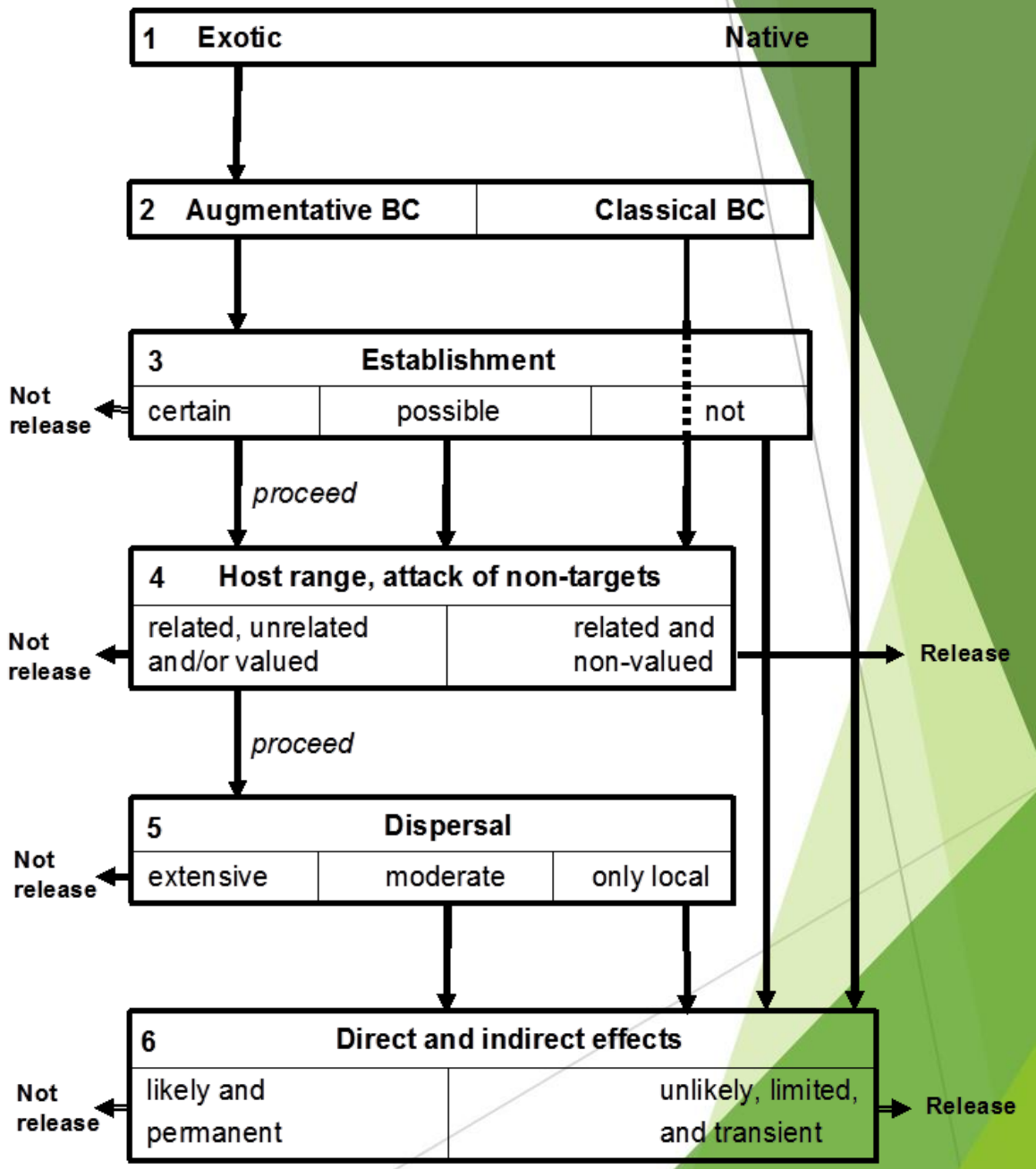
Predatory mites Southern Europe

Risk assessment criteria:

- Establishment highly likely
- Polyphagous organisms



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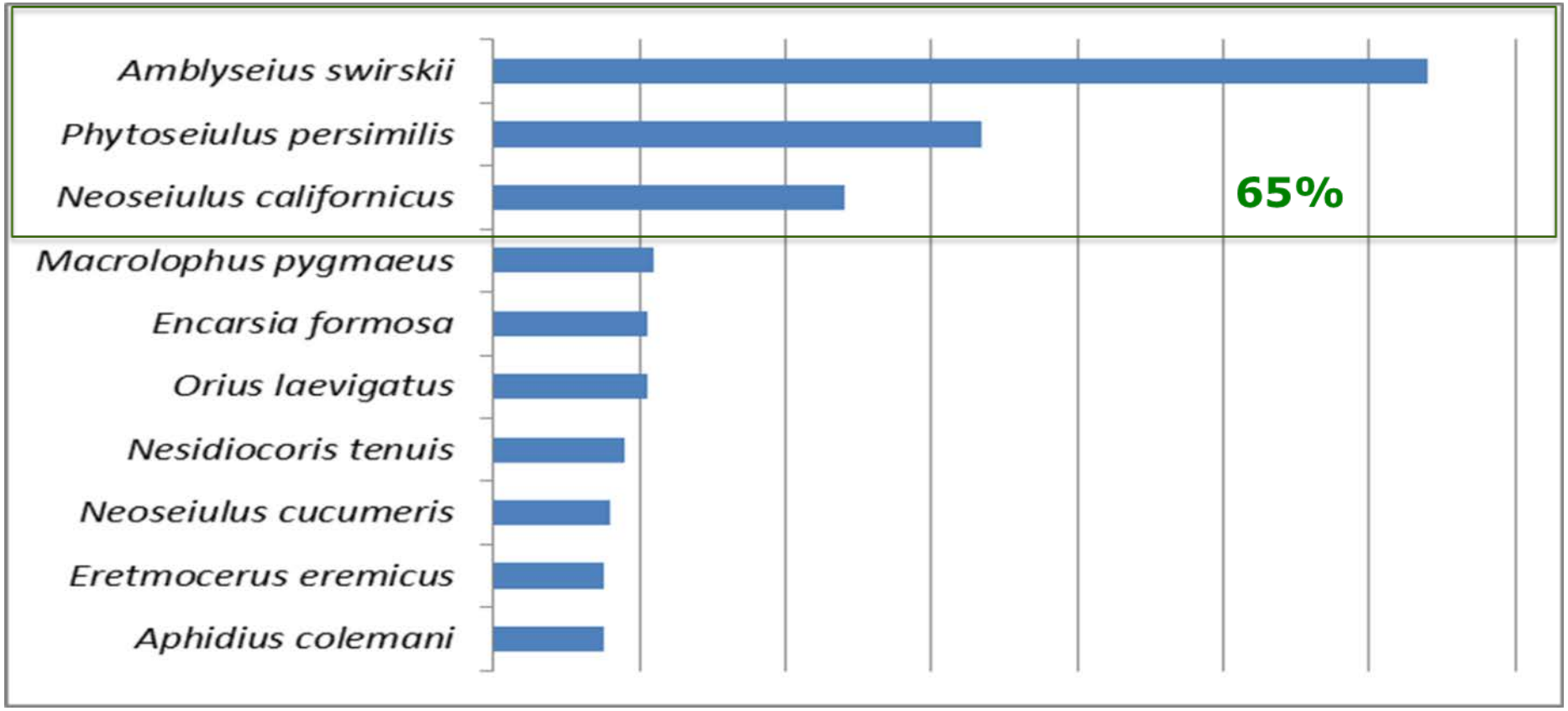
Predatory mites most important IBCA's



Top-10 of biocontrol agents used in greenhouses (turnover)

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Amblyseius swirskii

- First application 2004: EPPO dossier including efficacy data Spain

- Permit granted September 2006
- Made ‘Green Revolution’ in 2007 possible

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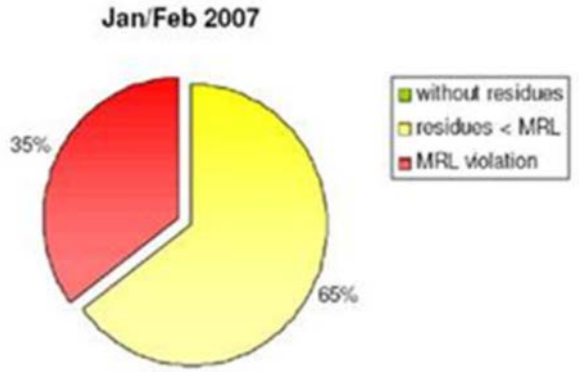
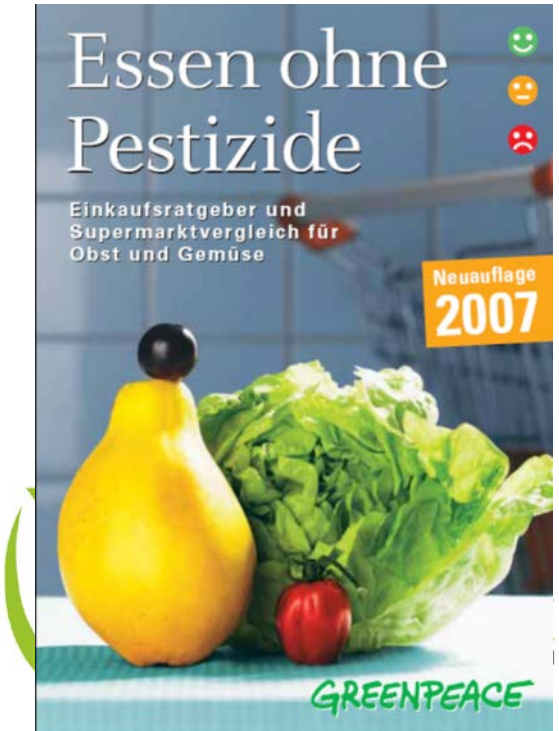
Green revolution Spain

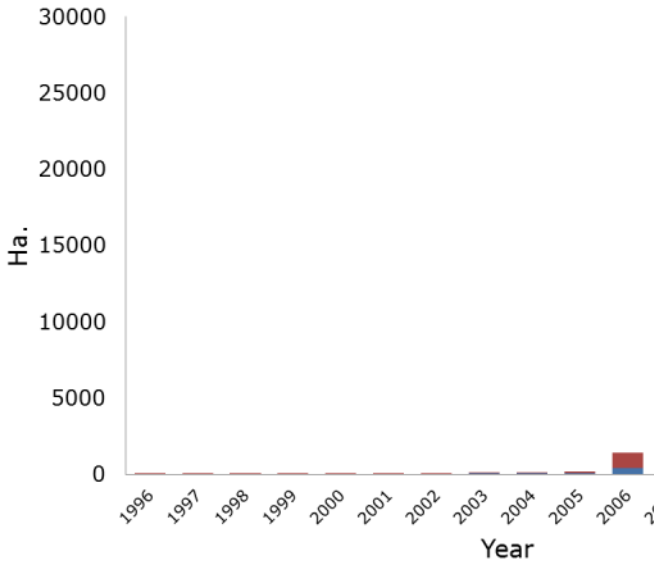


< 2007: hardly any biocontrol

2007: Greenpeace report MRL violations: Isofenfos, illegal pesticides

> 2007: immediate response *Orius* + *A.swirskii* > rapid increase biocontrol





Amblyseius montdorensis

- First application 2007
- Additional questions answered twice
- Trial permit received 2011
- Trials performed, incl. post-release monitoring
- More questions on environmental tolerances were answered
- **Still no commercial permit**

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Amblydromalus limonicus

- First application 2012: EPPO dossier
- Additional questions:
  - Release rate Spanish conditions
  - Egg hatching Spanish conditions
  - Dispersal
  - Product composition (% active stages)
- Trial permit received
- Trials running

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Euseius gallicus

- First application 2013: EPPO dossier
- Additional questions:
  - Intraguild predation
  - Semi field trials Spanish conditions
  - Dispersal
  - Assess escape routes from greenhouse
  - Justify necessity of importation <> possible ‘native’ solutions
- Trials running
- 2015: *E. gallicus* EPPO listed based on wide distribution in EPPO region

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Eric Palevsky
acarologist
Newe-Ya-ar
research centre
Israel

IOBC meeting
Bornholm may
2015:

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Take home messages-1

- Despite large scale releases of specialized, generalist and plant feeding phytoseiids, and the establishment of key species, no cases have been documented that have showed any negative effects.
- Yet if risk assessments would have been conducted according to the current guidelines probably these successful BCAs would not have received authorization for release.
- Additionally we saw that the criterion for successful insect BCAs do not fit generalists such as *Amblyseius swirskii*. This infers that the criterion for risk assessment for generalist and host specific predatory mites needs to be re-thought.

Examples

- Parasitic wasp
- against *Dryocosmus kuriphilus*
- From Asia
- Now released in Italy, soon also France, Portugal
- Project with government
- Application made, no permit received, instead more trials

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Conclusion

- Hard to come through:
- Data requirements unclear
- No clear definition ‘exotic’
- No direct communication with Environment

➢Increasing costs extra trials

➢Uncertainty

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Consequences

- Biocontrol companies will stop investing in development of new products

- No adequate response in case of new emerging pest

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Tomato psyllid ?

Pepper weevil ?

Neoleucinodes elegantalis

Citrus psyllid/ huanglongbing?

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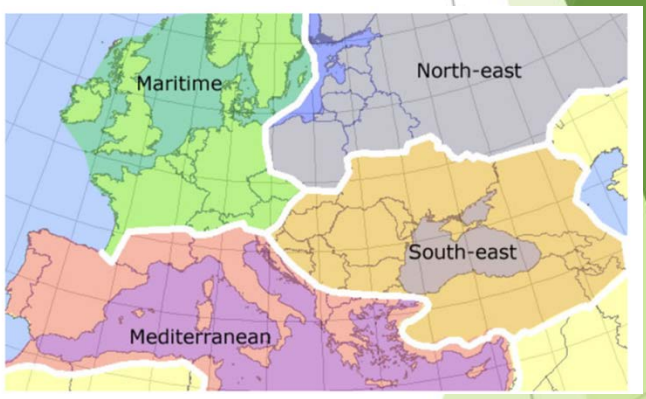
What happens if these pests arrive?

Recommendations

- Clear procedures required
- Open communication between Environment and applicants
- Broader definition of exotic
- ‘Mutual recognition’
- Criteria for risk assessment
  - Further specified, especially in case of establishment
  - Specific per risk category, especially predatory mites
  - Proportionate to risks



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Thank you for your attention

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