



Position paper on the interpretation of ‘native’ in invertebrate biocontrol agent regulations

IBMA member companies produce a broad range of solutions for the biological control of pests and diseases. These products provide economically competitive alternatives to the use of Plant Protection Products, and as such generate considerable ecological benefits. As an ecologically responsible industry it is obviously vital to us that our products have low environmental impact. For this reason, IBMA has engaged early-on with academic experts in the field of biocontrol to pro-actively develop stringent guidelines for ecological impact assessment of non-native species. These guidelines were published as EPPO standards PM 6/1(1) First import of exotic biological control agents for research under contained conditions and PM 6/2(2) Import and release of non-indigenous biological control agents. Our industry has complied with these standards to warrant the ecological safety of our natural pest control solutions. We only produce and market natural species, using material for our rearing as it has been collected from nature. Our industry has an excellent record in providing environmentally benign and acceptable solutions for crop protection. By providing alternatives for registered plant protection products, important ecological benefits have been realized.

In various European countries we work together with the authorities to develop appropriate and workable regulations that allow for a sound environmental impact assessment, without generating unnecessary hurdles to making our ecological solutions available to farmers. As such we offer to work with national authorities in order to avoid the potential risks associated with the use of non-native species.

However, as an industry we have serious objections to the interpretation of “Non-Native” below species level.

In several national legislations, “Non-Natives” are defined as organisms that are non-established on the national territory at the time of introduction in the environment. This concept is widely used to distinguish native from non-native *species*. Our concern lies with the fact that the national law does not always explicitly refer to the fact that it addresses non-native *species*. This lack of clarity could lead to requirements being imposed below the species level, such as subspecies, strain, and population level (e.g. restricting the use of native species if they have not been collected from and reared on national territory).



We strongly oppose any interpretation of the legislation below the species level, as we believe that:

1. **It does not provide added protection to the local flora and fauna;**
2. **Given widespread natural genetic exchange this makes no ecological/biological sense;**
3. **It will seriously hamper the development of clean, effective low environmental impact alternatives for crop protection and harm the competitiveness of local farmers**
4. **It is contrary to the law and spirit of European free trade**

Our main arguments regarding these four points are:

Locally collected “strains” or “populations” are non-workable concepts when it comes to distinguishing native from non-native. This, as there is always **substantial natural genetic exchange** between individuals/populations and strains of the **same species within their ecological range**. As the ecological range of a species does not tend to coincide with national borders, there is no ecological benefit to restricting the use of local or ‘national’ populations from a native species. National borders have no biological meaning. It also makes no sense comparing small and big countries in terms of surface and local populations. Only under conditions where populations are separated by substantial geographical barriers (such as wide water straits, or deserts) is it likely that genetic isolation may occur and subspecies may develop. Within continental Europe, such geographical barriers do not exist for the usually highly mobile (see below) arthropods. **National country borders are certainly NOT a geographical barrier.**

Arthropods tend to be very mobile. This mobility is both a result of the fact that many species are capable of active flight over long distances, and due to the fact that the large majority of these lightweight organisms use wind for passive dispersal. The fact that a large number of arthropods are carried upwards into the high atmosphere by air currents, allowing long range mobility, has led to the coining of the phrase “aerial plankton”. The latter strategy includes non-flying arthropods, such as predatory mites and spiders, that have sophisticated behaviors to be carried by air movement (the so-called ballooning) (Crawford *et al.*, 1995; Bisschop, 1990; Reed *et al.* 2011). Other well documented examples of long range migration are hoverflies (*Episyrphus balteatus*) that move every spring/summer from the Mediterranean to Northern Europe where they mix with the locally overwintering population (Hondelman, 2007; Raymond *et al.* 2013).

If a species were to adapt locally to the specific climatic or environmental conditions, such a locally adapted population will be at a selective advantage relative to organisms from a different ecological background. Due to the above described genetic exchange, the identification of national populations or strains is not feasible, or at best ambiguous, even when using genetic tools. Furthermore, it is unclear what risk assessment on population level would yield as added value compared to the risk assessments on species level currently performed.

EU Directive 128/2009

The sustainable use directive 2009/128/EC prescribes that sustainable biological, physical and other non-chemical methods should be preferred to chemical methods if they provide satisfactory pest control. To be able to reach the ambitious goals the National Action Plans (NAPs) set out, it is of paramount importance to have sufficient biological methods available in order to provide farmers with sufficient sustainable alternatives for pest control. Therefore, we urge for a workable regulation.



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regarding the use of invertebrate biocontrol agents (IBCA) to be able to guarantee a reliable supply of environmentally safe innovations without increased cost to the horticultural sector.

Multiple IBCA production sites within the same ecological zone would represent a substantial extra cost which would make our IBCA production unviable economically for the IBCA producers as well as for the farmers.

The surface where integrated pest management (IPM) is practiced is constantly increasing leading to a reduction of the use of traditional plant protection products (both under cover and open field). This reduction relies on the availability of competitive sustainable products produced by our members. Therefore, it is of paramount importance to have well designed logistic networks, considering a sound approach, both ecologically and economically.

The distinction between “national” populations compared to other populations within the same ecological zone for risk assessment would be of no biological meaning for arguments raised above. Furthermore, we feel that favoring the use of IBCA’s originating from “national” populations over IBCA populations originating from the same ecological zone would be inconsistent with the right of free trade.

References

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