

| INFORME DE BÚSQUEDA DE PATENTES                                                                                                                                                                                                                                                                                                                                                              |                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                    |
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| N° de solicitud:                                                                                                                                                                                                                                                                                                                                                                             |                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                    |
| CRITERIOS PARA LA BÚSQUEDA (Anexar pantallazo o reporte en PDF, junto con los boléanos utilizados*. Para el caso de secuencias, anexar alineamientos)                                                                                                                                                                                                                                        |                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                    |
| PALABRAS CLAVE UTILIZADAS                                                                                                                                                                                                                                                                                                                                                                    |                                      | CL=(FORMULATION*) AND CL=(AIZAWAI) AND CL=(KURSTAKI) AND CL=(SPORE*) AND PD<20150115                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                |                                                    |
| CLASIFICACIONES UTILIZADAS PARA LA BÚSQUEDA                                                                                                                                                                                                                                                                                                                                                  |                                      | CIP:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                |                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                              |                                      | CPC:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                |                                                    |
| DOCUMENTOS CONSIDERADOS RELEVANTES (documentos patentes, literatura no patente, etc...)                                                                                                                                                                                                                                                                                                      |                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                    |
| Informes/Base de datos                                                                                                                                                                                                                                                                                                                                                                       | N° de solicitud/ Autor**             | Fecha de Publicación/ Presentación (DD/MM/AAAA)                                                                                                                                                                                                                                                                                                                                                                                                                                          | Reiv. afectadas (Con indicación, si procede, de las partes relevantes o números de secuencias) | Categorías especiales de los documentos citados*** |
| SIPI                                                                                                                                                                                                                                                                                                                                                                                         |                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                    |
| ISA/IPEA (****)<br>EPO                                                                                                                                                                                                                                                                                                                                                                       | Morris <i>et al.</i><br>US2011033436 | 01/04/1996<br>10/02/2011                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1-11<br>1-11                                                                                   | Y<br>Y                                             |
| USPTO                                                                                                                                                                                                                                                                                                                                                                                        |                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                    |
| JPO                                                                                                                                                                                                                                                                                                                                                                                          |                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                    |
| KIPO                                                                                                                                                                                                                                                                                                                                                                                         |                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                    |
| Patbase*                                                                                                                                                                                                                                                                                                                                                                                     |                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                    |
| Google scholar                                                                                                                                                                                                                                                                                                                                                                               |                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                    |
| Google Patents                                                                                                                                                                                                                                                                                                                                                                               |                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                    |
| STN                                                                                                                                                                                                                                                                                                                                                                                          |                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                    |
| *** Categorías especiales de documentos citados:                                                                                                                                                                                                                                                                                                                                             |                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                    |
| <p>“A” documento que define el estado general de la técnica no considerado como particularmente relevante.</p> <p>“E” solicitud de patente o patente anterior pero publicada en la fecha de presentación internacional o en fecha posterior.</p> <p>“P” documento publicado antes de la fecha de presentación internacional pero con posterioridad a la fecha de prioridad reivindicada.</p> |                                      | <p>“X” documento particularmente relevante; la invención reivindicada no puede considerarse nueva o que implique una actividad inventiva por referencia al documento aisladamente considerado.</p> <p>“Y” documento particularmente relevante; la invención reivindicada no puede considerarse que implique una actividad inventiva cuando el documento se asocia a otro u otros documentos de la misma naturaleza, cuya combinación resulta evidente para un experto en la materia.</p> |                                                                                                |                                                    |
| **** Indicar entre paréntesis la Autoridad que realizó la búsqueda o el informe preliminar Ejs: EPO, JP, INAPI.                                                                                                                                                                                                                                                                              |                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                    |
| <b>Literatura no patente</b><br>**Se incluye entre otros, toda la referencia de la literatura no patente.                                                                                                                                                                                                                                                                                    |                                      | O. N. Morris M. Troitier V. Converse P. Kanagaratnam. Toxicity of <i>Bacillus thuringiensis</i> subsp. <i>aizawai</i> for <i>Mamestra configurata</i> (Lepidoptera: Noctuidae) <i>Journal of Economic Entomology</i> , Volume 89, Issue 2, 1 April 1996, Pages 359–365.                                                                                                                                                                                                                  |                                                                                                |                                                    |
| Fecha del reporte de búsqueda:                                                                                                                                                                                                                                                                                                                                                               |                                      | 5 de noviembre de 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                |                                                    |



In India, the diamondback moth, *Plutella xylostella* L. Lepidoptera: Plutellidae, is an important pest of cruciferous vegetables and causes severe economic losses. This pest has ability to evolve resistance in lab. and field to almost all groups of synthetic insecticides. Despite of these, management with synthetic insecticides has been considered to be the easy and favorable option by farmers in India which indeed increase the cost of cultivation and obviously redn. in the actual net profit. The use of microbial and botanicals pesticides are also available in the market and they are relatively cheap. These pesticides are eco-friendly and the residual toxicity is extremely low. In this study, we have evaluated the in vitro toxicity and co-toxicity of different groups of microbial and botanicals pesticides on the field derived population of *P. xylostella* using leaf dip bioassay. Among microbial pesticides Lipel *Bacillus thuringiensis* subsp. *kurstaki* was found to be very effective than MVP II (Cry1Ac) and XenTari (*Bacillus thuringiensis* subsp. *aizawai*). Anosom (1% EC) was found to be most effective against *P. xylostella* among botanicals as evidenced from lowest LC50 value of only 0.1 ppm. Being a botanical pesticide, Anosom (1% EC) could be used as a substitute to synthetic insecticides in integrated management of *P. xylostella*. Co-toxicity of pesticides against second instars larvae of *P. xylostella* was assessed using binary mixt. of two botanical pesticides at three different combinations (1:1, 1:2 and 2:1 ratio) and found that all the combinations show **synergistic** effect against diamondback moth. Objective of present research is to investigate toxicity and co-toxicity of botanical and microbial pesticides against diamondback moth so that it could be used as substitute to chem. pesticide for integrated management of diamondback moth.

**Cited References Count:**

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## Session

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- L1 59 S "BACILLUS THURINGIENSIS SUBSP. AIZAWAI"  ...
- L2 314412 S SYNER?  ...
- L3 9 S L1 AND L2  ...
- L4 2 S L3 AND PY<2015  ...
- L5 409 S "BACILLUS THURINGIENSIS" (2W) AIZAWAI  ...
- L6 1786 S KURSTAKI  ...
- L7 252 S L5 AND L6  ...
- L8 206 S L7 AND PY<2015  ...
- L9 95 S L8 NOT P/DT  ...
- L10 254259 S SYNERGISTIC OR SYNERGY OR "SYNERGISM"  ...
- L11 5 S L9 AND L10  ...

wo/2016/115470 synergistic bacillus thuringiensis subsp. aizawai ...

[https://patentscope.wipo.int/.../detail.jsf;...FP%3A\(bacillus\)...](https://patentscope.wipo.int/.../detail.jsf;...FP%3A(bacillus)...) - Traducir esta página

21 jul. 2016 - 142. (WO2016115470) SYNERGISTIC BACILLUS THURINGIENSIS SUBSP. AIZAWAI, BACILLUS THURINGIENSIS SUBSP. KURSTAKI AND ...

## Synergism between Bacillus thuringiensis Spores and ... - NCBI - NIH

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por YB Liu - 1998 - Mencionado por 71 - Artículos relacionados

We evaluated the synergism of *B. thuringiensis* toxins with spores from *B. thuringiensis* subsp. *kurstaki* and *B. thuringiensis* subsp. *aizawai* against a susceptible ...

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## Evaluation of synergism among Bacillus thuringiensis toxins.

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por BE Tabashnik - 1992 - Mencionado por 210 - Artículos relacionados

Evaluation of synergism among *Bacillus thuringiensis* toxins. ... *thuringiensis* subsp. *morrisoni* PG-14 expressed in *B. thuringiensis* subsp. *kurstaki* by using the ...

## [PDF] Synergistic Activity of a Bacillus thuringiensis -Endotoxin and a ...

[https://www.mpipz.mpg.de/.../Regev\\_Appl\\_Env\\_Microb\\_62.pdf](https://www.mpipz.mpg.de/.../Regev_Appl_Env_Microb_62.pdf) ▼ Traducir esta página

por A REGEV - 1996 - Mencionado por 231 - Artículos relacionados

When applied together with low concentrations of CryIC, a synergistic toxic .... talliferous, plasmid-cured derivative of *B. thuringiensis* subsp. *kurstaki* HD-1, .... subsp. *aizawai* 7.29 which includes the entire coding region of cryIC and its native.

## Bacillus thuringiensis - Applied and Environmental Microbiology

<https://aem.asm.org/content/64/4/1385.full.pdf> - Traducir esta página

por YB Liu - 1998 - Mencionado por 71 - Artículos relacionados

contrast, analogous experiments with *B. thuringiensis* subsp. *aizawai* revealed no significant ... found synergism between *B. thuringiensis* subsp. *kurstaki* spores.

## Toxicity of Bacillus thuringiensis subsp. aizawai for ... - Oxford Journals

<https://academic.oup.com/jee/article/89/2/359/2216382> - Traducir esta página

por ON Morris - 1996 - Mencionado por 14 - Artículos relacionados

Fifty-one strains of *Bacillus thuringiensis* subsp. *aizawai* were screened for ... and was synergistic with *B. thuringiensis* subsp. *kurstaki* (R0262), *B. thuringiensis* ...

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| 6 | 4 AND 5           | 13                  | View   Browse   Hits   Optimise   more... |
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| 2 | CL=(AIZAWAI)      | 179                 | View   Browse   Hits   Optimise   more... |
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