



2025:DHC:8670



* **IN THE HIGH COURT OF DELHI AT NEW DELHI**

% Judgment delivered on: 26.09.2025

+ **C.A.(COMM.IPD-PAT) 25/2022**

VALENT BIOSCIENCES LLC

.....Appellant

versus

**THE CONTROLLER OF PATENTS AND DESIGNS
AND ANR**

.....Respondents

Advocates who appeared in this case

For the Appellant : Ms. Vindhya S. Mani and Ms. Naina Gupta,
Advocates.

For the Respondents : Mr. P.S. Singh, CGSC with Mr. Rajneesh
Sharma, Ms. Minakshi Singh and Ms. Anna
Singh, Advocates.

**CORAM:
HON'BLE MR. JUSTICE TEJAS KARIA**

JUDGMENT

TEJAS KARIA, J

INTRODUCTION:

1. The Appellant has filed an Appeal under Section 117A of the Patents Act, 1970 (“Act”), against order dated 08.11.2021 (“**Impugned Order**”) passed by Assistant Controller of Patents & Designs (“**Controller**”), against the Patent Application No. 201717025151 (“**Subject Application**”)



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whereby the Appellant's Patent Registration was refused on the ground, *inter alia*, lack of inventive step under Section 2(1)(ja) of the Act and non-patentability under Section 3(h) of the Act.

FACTUAL BACKGROUND:

2. The Appellant, *Valent Biosciences LLC*, is a company incorporated under the laws of United States of America. The Subject Application titled, "SYNERGISTIC BACILLUS THURINGIENSIS SUBSP. KURSTAKI AND CHLORANTRANILIPROLE MIXTURES FOR PLANT PEST CONTROL" was filed before the Patent Office, New Delhi on 14.07.2017.

3. On 15.01.2016, the Appellant filed a Patent Cooperation Treaty Application No. PCT/US2016/013607, having 20 Claims, claiming priority from the US Patent Application No. 62/104,140. On 14.07.2017, the Appellant filed the Subject Application along with Complete Specification, claims numbered as 1 to 20 before the learned Controller. On 19.11.2018, a request for examination by way of Form 18 was filed by the Appellant before the Patent Office, New Delhi. On 03.11.2017, the Subject Application was published in the Patent Journal. On 03.12.2020, the First Examination Report was issued by the Patent Office, New Delhi ("FER"). On 03.05.2021, a response to the FER was filed by the Appellant before the Patent Office, New Delhi.

4. On 03.08 2021, Hearing Notice with respect to the reply to the FER was issued by the learned Controller stationed at the Patent Office, Kolkata, granted a hearing through Video Conferencing on 07.09.2021. On 07.09.2021, a hearing was conducted before the learned Controller through Video Conferencing, and directions were given to the Appellant to file



written submissions pursuant thereto. On 21.09.2021, written submissions along with amended claims 1 to 12 were filed.

5. On 08.11.2021, the learned Controller passed the Impugned Order and rejected the Subject Application filed by the Appellant.

6. The present invention relates to a method of controlling a pest selected from the group consisting of Diamondback moth (*Plutella xylostella*), Beet armyworm (*Spodoptera exigua*), Sugarcane borer (*Diatraea saccharalis*), Soybean looper (*Chrysodeixis includens*), and Corn earworm (*Helicoverpa zea*) comprising applying a synergistic amount of *Bacillus thuringiensis* subsp. *kurstaki* and chlorantraniliprole to an area where the pest eats. The latest independent amended Claim 1 of the Subject Application rejected by the learned Controller is reproduced hereunder:

“1. A method of controlling a pest selected from the group consisting of Diamondback moth (Plutella xylostella). Beet armyworm (Spodoptera exigua). Sugarcane borer (Diatraea saccharalis). Soybean looper (Chrysodeixis includens), and Corn earworm (Helicoverpa zea) comprising applying a synergistic amount of Bacillus Thuringiensis subsp. kurstaki and chlorantraniliprole to an area where the pest eats, wherein the ratio of Bacillus thuringiensis subsp. kurstaki to chlorantraniliprole is from 1:0.001 to 1:0.08”

7. The Subject Application provides a method of controlling a pest selected from the group consisting of Diamondback moth (*Plutella xylostella*), Beet armyworm (*Spodoptera exigua*), Sugarcane borer (*Diatraea saccharalis*), Soybean looper (*Chrysodeixis includens*), and Corn earworm (*Helicoverpa zea*) comprising applying a synergistic amount of *Bacillus thuringiensis* subsp. *kurstaki* and chlorantraniliprole to an area where the pest eats, wherein the ratio of *Bacillus thuringiensis* subsp. *kurstaki* to chlorantraniliprole is from about 1:0.001 to about 1:0.08.15. The advantage of using *Bacillus thuringiensis* subsp. *kurstaki* is that it is target specific. It



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does not harm humans or other non-target species. The use of *Bacillus thuringiensis* subsp. *kurstaki* and chlorantraniliprole at a ratio range of from about 1:0.001 to about 1:3 provides unexpected synergistic effects against specific Lepidopteran species.

SUBMISSIONS ON BEHALF OF THE APPELLANT:

8. The learned Counsel for the Appellant submitted that the Impugned Order violates principles of natural justice as it provides insufficient reasoning for its conclusions. The FER has substantive objections in respect of the Claims 1 to 20 as it is lacking the inventive step in view of D1 to D4 and the non-patentability under Section 3(h) of the Act. The Hearing Notice dated 03.08.2021 lacks the subject matter claimed in the claims is unclear and lacks support in the Specification.

9. The learned Counsel for the Appellant submitted that the Impugned Order in respect of amended Claims 1 to 12, raised the objection on the ground of lack of inventive step in view of the prior art documents D1 to D4. The Impugned Order lacks proper reasoning and therefore, violates the principles of natural justice. In view of this submission, the learned Counsel for the Appellant relied upon the decision passed by the erstwhile Intellectual Property Appellate Board (“IPAB”) in *Wisig Networks Private Limited v. Controller General of Patents, Design, Trademark and Geographical Indications*, 2021(85)PTC 470(IPAB).

10. The learned Counsel for the Appellant further submitted that none of the prior art documents cited for lack of inventive steps, alone or in combination describe, teach or motivate a Person Skilled in the Art (“PSITA”) to arrive at the claimed invention of the Subject Application. For this submission, the learned Counsel for the Appellant relied upon the



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decision in ***Bristol-Myers Squibb Holdings Ireland Company and Ors. vs. BDR Pharmaceuticals International Pvt. Ltd. and Ors***, 2020 SCC OnLine Del 1700. Moreover, the learned Controller failed to take into consideration the settled judicial precedent in ***F. Hoffmann – La Roche Ltd & Anr. v. Cipla Ltd.***, 2015 SCC OnLine Del 13619 for raising the ground of lack of inventive steps. The learned Controller has failed to meet the requirements of the five-step test as mandated by ***F. Hoffmann*** (*supra*). The learned Controller has failed to identify PSITA given the technical field of the invention. The learned Counsel for the Appellant relied on the decision by Madras High Court in ***Rhodia Operations v. Assistant Controller of Patents and Designs***, Neutral Citation: 2024:MHC:6024.

11. The learned Counsel for the Appellant submitted that the learned Controller has failed to provide any reference for the common general knowledge in the existing date of the art at the priority date of the Subject Application. Absent any evidence as to what amounts to common general knowledge, the claimed invention cannot be asserted to lack inventive step. In support of the above submissions, the learned Counsel for the Appellant relied upon the following decisions:

- ***AGFA NV and Another v. Assistant Controller of Patents and Designs and Another***, 2023 SCC OnLine Del 3493; and
- ***Dong Yang Pc, Inc. v. Controller of Patents and Designs***, 2025 SCC OnLine Del 5112.

12. The learned Counsel for the Appellant submitted that the lack of inventive step was not determined as per the mandate expressed in the Act. The learned Controller has failed to consider the synergistic activity of *B. thuringiensis* in combination with chlorantraniliprole against the target



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species of the claimed invention is not disclosed in the cited prior art documents. Further, D1 does not disclose the use of *B.thuringiensis* subsp. *kurstaki* with chlorantraniliprole against Diamondback moth (*plutella xylostella*) as asserted by the learned Controller. Instead, D1 discloses use against cabbage moth (*mamestra brassicae*) and efficacy against Diamondback moth is an inventive step over efficacy against cabbage moth because of the synergistic activity of *Bacillus* and chlorantraniliprole is unpredictable. Therefore, D1 did not disclose the inventive features of the claimed invention and does not ‘teach’, ‘suggest’ or ‘motivate’ PSITA to arrive at the claimed subject matter. Thus, D1 does not render the claimed invention obvious to PSITA. The learned Counsel for the Appellant relied upon ***Biomoneta Research Pvt. Ltd. vs. Controller General of Patents Designs and Ors.***, 2023 SCC Online Del 1482, while making the above submission.

13. The learned Counsel for the Appellant further submitted that D2 did not demonstrate the activity of *B.thuringiensis* subsp.*kurstaki* and chlorantraniliprole against the target species of the claimed invention. Therefore, D2 completely failed to disclose the inventive features of the claimed subject matter. This, it does not render the claimed invention obvious to PSITA. It was further argued that D3 did not demonstrate the synergistic activity of any *Bacillus* species in combination with chlorantraniliprole against any pest. The only example of synergy was in Table 2B of document D3 demonstrating the synergy of chlorantraniliprole and some synthetic pesticides, but not others, against silverleaf whitefly. Therefore, D3 completely failed to disclose the inventive feature of the claimed subject matter. Thus, it did not render the claimed invention obvious



to PSITA. D4 did not demonstrate the synergistic activity of any *Bacillus* species in combination with chlorantraniliprole against any pest. The only examples of synergy are in Test 3 and Test 4 of D4, which demonstrates the synergy of chlorantraniliprole with indoxacarb, spinosyn, fibronil, abamectin, pyrrolonitrile, or thiamethoxam. Therefore, D4 completely failed to disclose the inventive features of the claimed subject matter and thus, does not render the claimed invention obvious to PSITA.

14. The learned Counsel for the Appellant submitted that PSITA would not regard it as obvious that a synergistic effect could be obtained for each and every species within the Lepidopteran order. Reliance was placed on ***BASF Agrochemical Products v. Syngenta Participations AG***, 2014 SCC OnLine EPO(A) 408, wherein it was highlighted that that even small structural modifications within a single class of herbicide could result in loss of synergy.

15. The learned Counsel for the Appellant further submitted that the doctrines of “*routine optimisation*” and “*obvious to try*” are fundamentally challenged based on the idea of predictability. Given that the foundation of the instant invention is unpredictability, none of these apply. The claimed invention demonstrates synergy and unexpected results. An invention to be held inventive must be one of discovery against the odds, not of inevitable progress along a well-lit path.

16. The learned Counsel for the Appellant further submitted that corresponding patents have been granted to the Appellant in other jurisdictions, including US, Europe, Australia, Colombia, Indonesia, and Japan. The grant of the corresponding applications clearly indicates the inventive merit, patentability, commercial interest and industrial



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applicability of the instant invention. Reliance is placed on the order of the learned IPAB in *Stempeutics Research Pvt. Ltd. v. Assistant Controller of Patents*, 2020 SCC OnLine IPAB 16, wherein the IPAB observed that some importance could be given when similar patent was registered in many other countries after having overcome the objection of novelty and obviousness.

17. The learned Counsel for the Appellant placed reliance upon *TVS Motor Company Limited v. Deputy Controller of Patents*, C.M.A No. 2115/2021, wherein the Madras High Court held that when the claimed invention is compared with the cited prior arts, it is evident that all three cited prior arts are intended to be applied to four wheelers, whereas the claimed invention is intended to be deployed on the handle bar of a 2 or 3 wheeler. Despite the contention by the patent office that the problem to be solved in the claimed invention is identical to that resolved in the cited prior art documents, it was held that resolving a problem in one type of motor vehicle cannot be equated with resolving the same problem in a different type of motor vehicle.

18. The learned Counsel for the Appellant submitted that there has been incorrect interpretation and application of Section 3(h) of the Act as the Subject Application is directed to the use of synergistic amounts of *Bacillus thuringiensis* subsp. *kurstaki* and chlorantraniliprole for control of Diamondback moth, beet armyworm, sugarcane borer, soybean looper and corn earworm and thus, cannot in any manner considered to be conventional methods of agriculture or horticulture.

19. The learned Counsel for the Appellant submitted that the learned Controller has failed to properly interpret and apply Section 3(h) of the Act, which prohibits the grant of a patent to a method of agriculture and



horticulture, however, in the present case the claimed invention under the Subject Application is not directed to a method of agriculture and horticulture, but directed to a method of treatment of plant. The learned Counsel for the Appellant relied upon *Decco Worldwide Post Harvest Holding B. V. and Anr. v. Controller of Patents*, AID NO. 11/2021, wherein it was categorically expressed that method of treatment of plants to treat fungal diseases would not be considered under “traditional methods of agriculture” without thorough analysis. Further reliance was placed upon this Court’s decisions in *Syngenta Crop Protection AG v. Asst. Controller*, Neutral Citation: 2024:DHC:9383 and *Mitsui chemicals INC v. Controller of Patents*, C.A.(COMM.IPD-PAT) 196/2022, wherein it was categorically held that a method of treatment in plants would not fall under the purview of ‘method of agriculture’ under Section 3(h) of the Act.

20. The learned Counsel for the Appellant further submitted that the prohibition under Section 3(h) of the Act was intended to apply to “inventions in the field of plant propagation by asexual methods”. Thus, it is submitted that the method claims of the Subject Application are not directed to any conventional “method of agriculture or horticulture” performed on actual open fields and thus, do not fall within the purview of Section 3(h) of the Act. For this submission, the learned Counsel for the Appellant relied upon the *Ayyangar Committee Report* of 1959.

21. The learned Counsel for the Appellant submitted that the examples provided for ‘method of agriculture or horticulture’ in the *Guidelines for Examination of Biotechnology Application for Patent, 2013* issued on 25.03.2012 suggest that agriculture is a method of producing plant /



improved soil, which does not include method of treatment of plant to render them free of disease.

22. In view of the above, it was submitted that the present Appeal deserves to be allowed and the Impugned Order be quashed and set aside and the Subject Application be remanded back to the learned Controller for fresh consideration.

SUBMISSIONS ON BEHALF OF THE RESPONDENTS:

23. The learned Counsel for the Respondents submitted that D1 disclosed the combination of *Bacillus thuringiensis* with chlorantraniliprole for use against the Diamondback moth, cabbage moth (*Mamestra brassicae*). D2 disclosed the use of toxins of *Bacillus thuringiensis* subsp. *kurstaki* with chlorantraniliprole to bring about a synergistic effect against *Helicoverpa armigera*. D3 disclosed a combination comprising of (i) chlorantraniliprole; and (ii) *Bacillus thuringiensis* subsp. *kurstaki* among many other possible combinations and D4 disclosed the combination of *Bacillus thuringiensis* with chlorantraniliprole for use against beet armyworm.

24. The learned Counsel for the Respondents submitted that the documents on record disclose the use of synergistic combination or composition of *Bacillus thuringiensis* subsp. *kurstaki* and chlorantraniliprole for control of various crop pests. The cited documents disclose about the use of combination of *Bacillus thuringiensis* with chlorantraniliprole for use against the Diamondback moth, cabbage moth (*Mamestra brassicae*), *Helicoverpa armigera*, beet armyworm etc. Thus, the method of controlling crop pests such as Diamondback moth (*Plutella xylostella*), Beet armyworm (*Spodoptera exigua*), Sugarcane borer (*Diatraea saccharalis*), Soybean



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looper (*Chrysodeixis includens*), and Corn earworm (*Helicoverpa zea*) by application or use of well-known combination of *Bacillus thuringiensis* with chlorantraniliprole for a set of new pests does not involve any inventive step under Section 2 (1)(ja) of the Act.

25. The learned Counsel for the Respondents submitted that the combined disclosure of D1 to D4 makes Claims 1 to 12 of the Subject Application obvious for PSITA and hence, does not involve any inventive step under Section 2 (1)(ja) of the Act.

26. The learned Counsel for the Respondents submitted that the present invention is directed to methods for controlling a crop plant pest wherein the amount of chlorantraniliprole is from about 20 to about 150 grams per hectare. In a more preferred embodiment, the amount of chlorantraniliprole is from about 50 to about 110 grams per hectare. Therefore, it is prohibited under Section 3(h) of the Act.

27. The learned Counsel for the Respondents further submitted that the claimed method could control pests of the root and tuber vegetables, the bulb vegetables, leafy vegetables, legumes etc. Accordingly, the claimed (Claims 1 to 12) method is directed to a 'method of agriculture or horticulture' and hence, is not allowable under the purview of Section 3(h) of the Act. Hence, these Claims attract Section 3(h) of the Act, and the present Appeal is liable to be dismissed.

ANALYSIS AND FINDINGS:

28. The invention under the Subject Application is a method of controlling a pest selected from the group consisting of Beet armyworm (*Spodoptera exigua*), Corn earworm (*Helicoverpa zea*), Diamondback moth (*Plutella xylostella*), Soybean looper (*Chrysodeixis includens*), and



Sugarcane borer (*Diatraea saccharalis*), comprising applying a synergistic amount of two active compounds that are *Bacillus thuringiensis* subsp. *kurstaki* and chlorantraniliprole, in the specified range of the ratio.

Objection under Section 2(1)(ja) of the Act

29. The learned Counsel for the Appellant submitted that the Impugned Order does not mention the specific sub-species stream and the learned Controller is referring to only one pest species, not all five target pests. The learned Counsel for the Appellant further submitted that the target pests are important here, as there are many species.

30. The learned Counsel for the Appellant submitted that the depth of the trial to bring out the specific five species and there are 1,00,000 insects, and the Appellant is using the two compounds with a specific ratio to bring a synergistic effect, which is an inventive step, and therefore, is not obvious.

31. D1 i.e. CN102805105A (05.12.2012) is related to the Pesticide composition containing *Bacillus thuringiensis* and chlorantraniliprole. D1 also disclosed the synergistic effect of *Bacillus thuringiensis* and chlorantraniliprole in the given specific range of ratios and the cototoxicity coefficient on *Plutella xylostella*. In this regard, the learned Controller has not discussed whether in the light of the range of ratios provided in D1 the subject matter under the Subject Application is obvious to claim a method of controlling a pest comprising *Bacillus thuringiensis* subsp. *kurstaki* to chlorantraniliprole is from 1:0.001 to 1:0.08.

32. D1 did not disclose the Diamondback moth (*Plutella xylostella*) as asserted by the learned Controller and, instead, D1 discloses use against the cabbage moth (*Mamestra brassicae*). Although D1 discloses the Diamondback moth (*Plutella xylostella*), it does not discuss the *Bacillus*



thuringiensis subsp. kurstaki to chlorantraniliprole and the range of ratios claimed in the Subject Application of 1:0.001 to 1:0.08.

33. D2, which is titled ‘Effects of interactions among *Metarhizium anisopliae*, *Bacillus thuringiensis* and chlorantraniliprole on the mortality and pupation of six geographically distinct *Helicoverpa armigera* field populations relates to the discussion on the effects of interactions among *Metarhizium anisopliae*, *Bacillus thuringiensis* and chlorantraniliprole on the mortality as well as pupation of six geographically distinct *Helicoverpa armigera* field populations. *Helicoverpa* is another family of *Lepidoptera*, and the five target pests of the present invention do not belong to this family. D2 mentioned *Plutella xylostella* L. (*Lepidoptera*: *Plutellidae*), however, the discussion is about the susceptibility of Diamondback moth to entomopathogenic fungi individually, not with *Bacillus thuringiensis* and chlorantraniliprole. On the other hand, the compound *Bacillus thuringiensis* subsp. *Kurstaki* under the Subject Application is a bacterium.

34. D2 did not demonstrate the activity of *B. thuringiensis* subsp. *kurstaki* and chlorantraniliprole against the target species of the claimed invention. Therefore, D2 completely failed to disclose the inventive features of the claimed subject matter, that is five specified target pests and the specific range of ratios of the two active compounds. Accordingly, D2 did not render the claimed invention obvious to PSITA.

35. D3 (WO2006/007595 A2) relates to synergistic mixtures of anthranilamide invertebrate pest control agents where the *first* active compound is 3-bromo-N-[4-chloro-2-methyl-6[(methylamino) carbonyl] phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide, and the *second* active compound is selected for a group of provided compounds.



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Further, D3 did not demonstrate the synergistic activity of any *Bacillus* species in combination with chlorantraniliprole against any of the five pests relevant for the Subject Application.

36. The invention under D4 i.e. CN 102047914B belongs to the field of agricultural insecticides and relates to an insecticide composition. It relates to a binary mixture composition that contains pyrazole benzamide insecticides, preparation of the composition and a method for controlling pests. D4 did not disclose *B. thuringiensis* subsp. *kurstaki*. D4 did not demonstrate the synergistic activity of any *Bacillus* species in combination with chlorantraniliprole against any pest.

37. The disclosure in the documents D1 to D4 regarding the inventive elements of the Subject Application are given hereunder:

Subject Application	D1	D2	D3	D4
5 Target pest species	Yes. D1 disclose Diamondback moth (<i>Plutella xylostella</i>). None of the other four target pests are disclosed.	No. D2. disclose about <i>hericoberpa armigera</i> . None of the target pests are disclosed.	No. D3 disclose about the synergistic mixtures of anthranilamide invertebrate pest control agents. None of the target pests are disclosed.	Yes. D4 disclose about the lepidopteran pests such as <i>Plutella xylostella</i> and <i>Spodoptera exigua</i> . None of the other target pests are disclosed.
Compounds	No. D1 does	Yes. D2 disclose the	Yes D 3 disclose	No. D4 does not



	not mention B. thuringiensis subsp. kurstaki It is a Pesticide composition containing Bacillus thuringiensis and chlorantraniliprole.	Effects of interactions among Metarhizium anisopliae, Bacillus thuringiensis subsp. kurstaki and chlorantraniliprole.	Bacillus thuringiensis subsp. kurstaki with chlorantraniliprole.	disclose B. thuringiensis subsp. kurstaki. The document D 4 discuss about the Chlorantraniliprole and Bacillus thuringiensis but not subsp. kurstaki.
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38. None of the prior art documents disclose both *Bacillus thuringiensis* subsp. *kurstaki* and chlorantraniliprole as well as any of the five target pests together. Document D1 discloses Diamondback moth (*Plutella xylostella*), while D4 discloses the lepidopteran pests such as *Plutella xylostella* and *Spodoptera exigua*. These documents do not disclose both *Bacillus thuringiensis* subsp. *kurstaki* and chlorantraniliprole. On the other hand, documents D2 and D3 disclose both the active ingredients that are *Bacillus thuringiensis* subsp. *kurstaki* and chlorantraniliprole, but does not disclose the target pests mentioned in the Subject Application.

39. The Impugned Order states that the combined disclosure of D1 to D4 renders the Claims 1 to 12 of the Subject Application obvious for PSITA. The Impugned Order further states that since the documents D1 to D4 disclose the synergistic effect of these two compounds against the Diamondback moth, cabbage moth (*Mamestra brassicae*), *Helicoverpa*



armigera, beet armyworm etc., the method of controlling five target crop pests under the Subject Application does not constitute an inventive step.

The relevant extract of the Impugned Order is reproduced hereunder:

“The cited documents disclose about the use of synergistic combination or composition of Bacillus thuringiensis subsp. kurstaki and chlorantraniliprole for control of various crop pests. The cited documents disclose about the use of a combination of Bacillus thuringiensis with chlorantraniliprole for use against the Diamondback moth, cabbage moth (Mamestra brassicae), Helicoverpa armigera, beet armyworm etc. Thus the method of controlling crop pests such as Diamondback moth (Plutella xylostella), Beet armyworm (Spodoptera exigua), Sugarcane borer (Diatraea saccharalis), Soybean looper (Chrysodeixis includens), and Corn earworm (Helicoverpa zea) by application or use of well known combination of Bacillus thuringiensis with chlorantraniliprole does not involve any inventive step u/s 2 (1)(ja) of the Indian Patent Act-1970.

Hence, combined disclosure of D1-D4 makes claims 1-12 of present application obvious for a person skilled in the art and hence does not involve any inventive step u/s 2 (1)(ja) of the Indian Patent Act-1970.”

40. Contrary to the above, the Complete Specification of the Subject Application provided several examples that represent the test of the different concentrations of the two active compounds producing different synergistic impacts on different pests. The examples of the Complete Specification show that synergistic interactions are present between the two compounds; (i) Bacillus thuringiensis subsp. kurstaki; and (ii) chlorantraniliprole.

41. Examples 1 to 7 in the Complete Specification of the Subject Application demonstrate the synergy of Bacillus thuringiensis subsp. kurstaki and chlorantraniliprole regarding the Diamondback moth, beet armyworm, sugarcane borer, soybean looper, and corn earworm, by way of the synergy ratios. The examples 5 and 4 of the Complete Specification of



the Subject Application shows that Sugarcane borer and Southwestern corn borer belong to the same genus *Diatraea* and still demonstrate differing effects to the composition of the claimed method. Therefore, the reasoning of the learned Controller that the reference of pests such as Diamondback moth, Cabbage moth (*Mamestra brassicae*), *Helicoverpa armigera*, Beet armyworm, etc. would make it obvious to apply the same to the five target pests mentioned under the Subject Application, cannot be accepted.

42. Document D1 is used to control pests of the order Lepidoptera that affect agricultural crops. The five target pests mentioned under the Subject Application fall under the order Lepidoptera, and there are 1,65,000 - 1,80,000 species under this order. The learned Controller does not provide reasoning that, with respect to D1, how it would be obvious to choose the specified composition of two active compounds on the five targeted pests under the Subject Application.

43. Regarding D3, only Table 2B of document D3 demonstrates the synergy of chlorantraniliprole and some synthetic pesticides (not others), against silverleaf whitefly. Therefore, D3 failed to disclose the inventive feature of the claimed subject matter and thus, does not render the claimed invention obvious to PSITA. Similarly, Test 3 and Test 4 of D4 are the only examples that demonstrate the synergy of chlorantraniliprole with indoxacarb, spinosyn, fibronil, abamectin, pyrralonitrile, or thiamethoxam. Therefore, simply stating that D4 disclosed the inventive features of the claimed subject matter cannot be accepted.

44. The Impugned Order does not provide an explanation that how the combined disclosure of documents D1 to D4 makes claims 1 to 12 of the Subject Application obvious to PSITA. Therefore, the limited reasoning of



the learned Controller in the Impugned Order that the limited disclosure in the prior art D1 to D4 would make it obvious when applying the same to the five pests mentioned under the Subject Application, cannot be accepted.

45. In, ***Biomoneta Research Private Limited v. Controller General of Patents Designs and Another*** 2023 SCC OnLine Del 1482, this Court held that the subject matter is patentable if there is a synergistic combination or a working interrelation of features which produces a new and improved result. The relevant paragraphs are reproduced hereunder:

“65. In the opinion of this Court, the subject invention is not a mere addition to a well-known combination, but it has some new features and is an improvement in the method which has brought in greater efficiency. In such inventions, the EPO guideline which deal with combination vs. juxtaposition or aggregation would be relevant, the said principle as laid down by the EPO is set out below:

“9.5 Combination vs. juxtaposition or aggregation The invention claimed must normally be considered as a whole. When a claim consists of a ‘combination of features’, it is not correct to argue that the separate features of the combination taken by themselves are known or obvious and that ‘therefore’ the whole subject matter claimed is obvious. However, where the claim is merely an ‘aggregation or juxtaposition of features’ and not a true combination, it is enough to show that the individual features are obvious to prove that the aggregation of features does not involve an inventive step. A set of technical features is regarded as a combination of features if the functional interaction between the features achieves a combined technical effect which is different from, e.g. greater than, the sum of the technical effects of the individual features. In other words, the interactions of the individual features must produce a synergistic effect. If no such synergistic effect exists, there is no more than a mere aggregation of features...”

66. Thus, if there is a synergistic combination or a working interrelation which produces a new and improved result, the subject matter is patentable. Lord Tomlin in *British Celanese Ltd. v. Courtaulds Ltd.*, (1935) 52 RPC 171 observed as under:

“It is accepted as sound law that a mere placing side by side of old integers so that each performs its own proper function



independently of any of the others is not a patentable combination, but that where the old integers when placed together have some working interrelation producing a new or improved result then there is patentable subject-matter in the idea of the working interrelation brought about by the collocation of the integers.”

46. Additionally, in ***Guangdong Oppo Mobile Telecommunications Corp., Ltd. v. Controller of Patents and Designs***, 2023 SCC OnLine Cal 6650, it was held that while relying on prior arts together, the reasons for doing so must be clearly spelt out. The relevant paragraph is reproduced hereunder:

*“11. Moreover, the impugned order records that D1 features a fixed voltage applied to the battery in contrast with a “second rectifier configured to apply the third voltage with the third ripple waveform to a battery”. In arriving at such conclusion, the respondent has created a mosaic of the prior arts D1 and D2 and also D1-D6 to conclude that the subject invention is obvious. While mosaicing in patents is permissible, the reasons for doing so must be clearly spelt out. **Although, D1 was stated to have all features of the subject invention, on a reading of the impugned order, I find that the respondent has not been able to demonstrate how D1 destroys the novelty of the subject invention. In any event the prior art D1 having been claimed as an anticipated prior art leading to the subject invention, the same could not have simultaneously rendered the subject invention obvious when read with documents D1 to D6.** In fact, the grounds of lack of novelty cannot work in tandem with the lack of inventive steps in opposing grant of any patent. The tests for novelty and obviousness are different and cannot coexist in connection with the same document. Thus, an invention cannot be considered to involve an inventive step if it is obvious to a person skilled in the art whereas an invention would lack novelty if a single prior art document contains an enabling disclosure of the claimed invention. In such circumstances, the impugned order erroneously finds that the prior art D1 contains all features of the subject invention whilst also finding that the claims of the subject invention are obvious when read with D1 to D6.”*

[Emphasis supplied]



47. Therefore, the Respondents have failed to demonstrate how the cited Documents D1 to D4 would render the claimed invention obvious under the Subject Application.

Objection Under Section 3(h) of the Act

48. The learned Controller in the Impugned Order has held that the Subject Application is not patentable under Section 3(h) of the Act. Contrary to this, the learned Counsel for the Appellant submitted that the interpretation in the Impugned Order does not accord with the correct construction of Section 3(h) of the Act. The reasoning provided under the Impugned Order, regarding the objection under Section 3(h) of the Act, is reproduced hereunder:

*“I observed that set of claims (1-12) filed are directed to A method of controlling a crop pest selected from the group consisting of Diamondback moth (*Plutella xylostella*), Beet armyworm (*Spodoptera exigua*), Sugarcane borer (*Diatraea saccharalis*), Soybean looper (*Chrysodeixis includens*), and Corn earworm (*Helicoverpa zea*) comprising applying a synergistic amount of *Bacillus thuringiensis* subsp. *kurstaki* and chlorantraniliprole to an area / standing crop / location where the pest eats / control is desired, wherein the ratio of *Bacillus thuringiensis* subsp. *kurstaki* to chlorantraniliprole is from 1:0.001 to 1:0.08. The application can be in the form of wettable powder formulations, water dispersible granules, granules, and emulsifiable suspension concentrates (paragraph 28). The present invention is directed to methods for controlling a crop plant pest wherein the amount of chlorantraniliprole is from about 20 to about 150 grams per hectare. In a more preferred embodiment, the amount of chlorantraniliprole is from about 50 to about 110 grams per hectare (paragraph 31). The present invention is directed to methods for controlling a crop plant pest comprising applying a synergistic amount of *Bacillus thuringiensis* subsp. *kurstaki* and chlorantraniliprole to a plant, wherein the ratio of *Bacillus thuringiensis* subsp. *kurstaki* to chlorantraniliprole is from about 1:0.001 to about 1:0.08, and wherein the plant is selected from the group consisting of root and tuber vegetables, bulb vegetables, leafy*



nonbrassica vegetables, leafy brassica vegetables, succulent or dried legumes, fruiting vegetables, cucurbit vegetables, citrus fruits, pome fruits, stone fruits, berry and small fruits, tree nuts, cereal grains, forage and fodder grasses and hay, non-grass animal feeds, herbs, spices, artichoke, asparagus, coffee, cotton, tropical fruits, hops, malanga, peanut, pomegranate, oil seed vegetables, sugarcane, tobacco, and watercress (paragraph 31). The claimed method can control pests of the root and tuber vegetables, the bulb vegetables, leafy vegetables, legumes etc. (paragraph 41 - 45). The control of pests are done on a plant / standing crop plant. In other words the control /modulation of pests is done on plant (standing crop plant) in agricultural field by applying the composition of *Bacillus thuringiensis* subsp. *kurstaki* and *chlorantraniliprole*. The modulation of pests is done on plant (standing crop plant or horticultural plants) in agricultural field, open fields or orchards by applying the composition of *Bacillus thuringiensis* subsp. *kurstaki* and *chlorantraniliprole*.

Therefore, the claimed (claim 1 – 12) method is directed to a method of agriculture or horticulture and hence is not allowable under the purview of Section 3(h) of the Patents Act. Hence, these claims attract section 3(h) of the Act.”

[Emphasis supplied]

49. The Impugned Order states that since the application of the compound can be in the form of wettable powder formulations / water dispersible granules / granules, and emulsifiable suspension concentrates, and the control of pests is done on a plant / standing crop plants, the claims of the Subject Application attract Section 3(h) of the Act.

50. The learned Counsel for the Appellant submitted that this provision in *Ayyinger Committee Report* (*supra*) does not permit inventions in the field of plant propagation by asexual methods, and does not prohibit the invention of the Subject Application, as it is a method of plant pest control involving an innovative technical solution. The relevant extract from Page 152 of *Ayyinger Committee Report* (*supra*), is reproduced as hereunder:



“Patents for inventions in the field of plant propagation by asexual methods [which would fall under para. (d)] are specifically permitted by the Patents Acts of the U.S.A. and of South Africa, but not in any other country. They have never been granted in India and the enactment of para (d) will remove any doubt that might exist as regards the patentability of such inventions.”

51. Additionally, the learned Counsel for the Appellant has also referred to Page 237 of the **Guidelines** (*supra*) and submitted that Section 3(h) of the Act prohibits the conventional methods performed on actual open fields while the present invention is an method of treatment of plants that embodies an innovative technical solution to agricultural challenges, which is not barred under this provision of the Act. The relevant provision of **Guidelines** (*supra*) is reproduced hereunder:

“14. SECTION 3 (H): METHOD OF AGRICULTURE AND HORTICULTURE

According to Section 3 (h) of the Act, a method of agriculture or horticulture is not considered as patentable subject matter. While deciding patentability under Section 3 (h), conventional methods performed on actual open fields should be construed as method of agriculture/horticulture.

ILLUSTRATIVE EXAMPLE:

Claim: A method of growing leguminous plants as inter-cropping for improving fertility of soil by augmenting nitrogen content of the soil. Analysis: The subject-matter of the claim is agriculture method and hence, falls within the scope of Section 3 (h) of the Act.”

[Emphasis supplied]

52. The process for the medicinal, surgical, curative, prophylactic, diagnostic, therapeutic or other treatment of human beings or animals is already barred under Section 3(i) of the Act and does not include plants. Section 3(i) of the Act is reproduced hereunder:

“(i) any process for the medicinal, surgical, curative, prophylactic diagnostic, therapeutic or other treatment of human beings or any process for a similar treatment of animals to render them free of



disease or to increase their economic value or that of their products.”

53. The Impugned Order does not provide the reasoning as to how the claimed invention under the Subject Application is a conventional method. In ***Decco Worldwide Post Harvest Holdings*** (*supra*), it was held that the patent office has failed to explain why the subject application falls within the category of ‘agriculture’ and the order does not provide reasons as to why a method of treatment of plants to treat fungal diseases would fall under the purview of Section 3(h) of the Act, which covers traditional methods of agriculture. The relevant paragraph is reproduced hereunder:

“11. In passing the impugned order the Controller has failed to explain why the subject patent application falls within the category of "agriculture". In fact, no reasons have been given by the Controller as to why a method of treatment of plants to treat fungal diseases would fall within section 3(h) which covers traditional methods of agriculture. The Controller has also failed to explain why prevention of disease or treatment would fall under agriculture, when there is a separate provision under section 3(i) of the Act. It is evident from section 3(i) of the Act that, the treatment of plants do not fall within the purview of non patentability and the Manual being a mere guiding factor to the statutory provisions of the Act cannot have an overriding effect over the Act. Thus, the finding that the subject invention falls within the definition of "agriculture" does not deal with the submissions of the appellants. In this connection, reliance was also placed by the appellants on the numerous inventions dealing with treatments of plants enumerated in the petition which have been totally ignored in the impugned order. Reasons are the foundation of any order passed by any judicial or quasi judicial authority. The main objective of providing reasons in any order is to provide clarity to the reader and to understand how and why and how the matter has been proceeded and dealt with by the Authority [Kranti Associates Private Limited & Anr. vs. Masood Ahmed Khan & Ors. (2010) 9 SCC 496, Uniworth Resorts Ltd. & Anr. vs. Ashok Mittal & Ors. 2007 SCC OnLine Cal 535 and Santanu Ghosh & Ors. Vs. The State Bank of India & Ors. (2013) 3 CLT 486]”



[Emphasis supplied]

54. In **Syngenta Crop Protection AG** (*supra*) while referring to the **Decco Worldwide Post Harvest Holdings** (*supra*), it is held that the patent related to the fungicidal treatment for black sigatoka, which is a method of treatment of plants, does not fall under Section 3(h) of the Act. The relevant paragraphs are reproduced hereunder:

“21. The Calcutta High Court in Decco Worldwide (Supra), while examining a similar issue with regard to the patentability of the method of 'treatment of plants' in respect of the patent titled '[a] Fungicidal treatment for Black Sigatoka' which is a method of treatment of plant, held that the method of 'treatment of plants' does not fall under Section 3(h) of the Patents Act. The relevant observation of the Court as made in paragraph 11 of the judgment is set out below:

*** *** ***

22. After recording the aforesaid findings, the Calcutta High Court remanded the matter to the Controller for fresh consideration.

*** *** ***

23. I am respectfully in agreement with the aforesaid view taken by the Calcutta High Court. In my opinion, a method of treatment of plants would not fall under the purview of 'method of agriculture' as defined in Section 3(h) of the Patents Act. It cannot be the intention of the legislature to remove the bar on patentability in respect of the method of 'treatment of plants' under Section 3(i) of the Patents Act and yet include the same within the purview of 3(h) of the Patents Act.”

[Emphasis supplied]

55. Additionally, in **Mitsui Chemicals Inc.** (*supra*), this Court set aside the order of the patent office on the ground of a lack of detailed analysis of the reasoning while objecting under Section 3(h) of the Act. It is held that the learned Controller, while analysing the patentability under Section 3(h) of the Act, must scrutinize whether the invention claimed under the



application genuinely constitutes a 'method of agriculture' or provides an innovative technical solution to agricultural challenges. The relevant paragraph is reproduced hereunder:

“15. The Impugned Order, devoid of any reasoning for classifying the subject matter of the claims under Section 3(h) of the Act, is thus liable to be set aside. The Court emphasizes the necessity for a more nuanced and detailed analysis of the claimed invention. This analysis must scrutinize whether it genuinely constitutes a 'method of agriculture' or embodies an innovative technical solution to agricultural challenges that might not fall within the exclusions of Section 3(h) of the Act. Crucial to this assessment is a clear distinction between purely agricultural methods and those with technical or scientific foundation addressing agricultural problems. Moreover, the Court directs the Respondent to re-evaluate their objection under Section 3(h), considering the evolving legal landscape and judicial interpretations. This re-examination must draw upon a comprehensive understanding of relevant case law, particularly the significant judgment by the High Court of Calcutta in Decco Worldwide Post Harvest Holdings B. V & Anr. v. The Controller of Patents and Designs & Anr. This judgment may offer valuable insights into the interpretation of 'methods of agriculture' and the patentability of innovations addressing agricultural problems using scientific principles.”

[Emphasis supplied]

56. In the present case, the learned Controller has not provided sufficient justification as to why a method of plant pest control claimed under the Subject Application would fall within the purview of Section 3(h) of the Act, which covers traditional methods of agriculture. Hence, Section 3(h) of the Act is not applicable in the facts of the present case.

57. Considering the submissions made by the Parties and in view of the above finding, the Impugned Order deserves to be set aside, and the matter is directed to be remanded to the Respondents for *de novo* consideration.



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58. Prior to deciding the matter afresh, Appellant shall be granted an opportunity of hearing. After completion of the hearing, the decision on the Subject Application shall be rendered within a period of six months from the date of conclusion of the hearing.

59. A copy of the Order also be brought to the notice of the learned Controller General of Patents, Designs and Trademarks for the necessary action.

60. The Appeal is disposed of in the aforesaid terms.

TEJAS KARIA, J

SEPTEMBER 26, 2025

KC/N