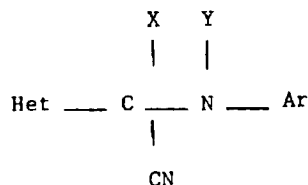


Compound and composition. Plant Growth Regulating Agents. A new compound and a composition thereof mixed with acceptable carriers, useful for plant growth regulation, represent different aspects of the same invention and may be allowable in the same application, absent prior art. Rejection withdrawn.

This decision deals with Applicant's request for review by the Commissioner of Patents of the Final Action on application 376,206 (Class 260-328.9) filed April 24, 1981. It is assigned to Shell Canada Ltd. and is entitled PHENYLAMINO (IMINO)-ACETONITRILE PLANT GROWTH REGULATING AGENTS. The inventors are E. Haddock and W.J. Hopwood.

The Examiner in charge issued a Final Action on June 6, 1985 refusing to allow claims 1 to 10 to remain in the application with claims 11 to 16. Claims 11 to 19 have been indicated to be allowable.

The application relates to a plant growth regulating composition including a carrier, and a compound of the general formula I or an acid addition salt thereof;



The X and Y together represent a bond, and X represents hydrogen or an alkyl group, and Y represents a hydrogenation atom or an acyl group derived from a carboxylic acid. The ring Het represents a furyl group, a thienyl group, an alkyl furyl group or an alkyl thienyl group. The group Ar is selected from a phenyl group, a halophenyl group containing one or more halogen atoms, a haloalkylphenyl group, an alkylphenyl group, or an alkoxyphenyl group. The compounds of general formula I have plant growth regulating properties when applied as a compound or composition to the plant, preferably, for example to soybean crops at the midway stage of filling of the pods. Any of the carriers regularly used in agricultural compositions may be used.

The Examiner rejected claims 1 to 10, directed to herbicidal compositions, in view of Gilbert v Sandoz 64 C.P.R. (1971) 14, 8 C.P.R. (2d) (1973) 210, and Agripat v The Commissioner of Patents 52 C.P.R. (2d) 229. He reasoned the mixture of the compounds of claims 11 to 16 with an agriculturally acceptable carrier would represent "no further inventive step". In commenting on the Supreme Court decision of Shell Oil Company v The Commissioner of Patents of November 2, 1982, and the arguments based thereon by the Applicant, the Examiner said, in part, as follows:

...

The finding of the Supreme Court is set out on Page 16 as following: "I find no obstacle in Section 36 or any other provision of the Act to the grant of a patent to the appellant in these compositions".

The next sentence reads:

"I make no observation, however, on whether or not the appellant can succeed in a subsequent application for patent in a subordinate element of its invention, namely the compounds themselves. This is not before us the appellant having abandoned such a claim at an early stage of the proceedings".

Clearly this portion of the Shell Oil decision does not give guidance on the allowability of claims to both the compounds and the compositions in the same application.

In developing her argument in Shell, Wilson J. page 13 on, re Hoechst and Agripat as follows:

"They did establish, however, that no inventive ingenuity is involved in mixing a compound with a carrier. Accordingly, if the compound is patented, there is no invention in the composition. That proposition, in my view, makes eminent good sense whether the substance is covered by S.41 or not and I think it affords an adequate basis for the result reached by the Federal Court of Appeal in Agripat".

"Agripat is, of course, distinguishable from the instant case in that no claim is being made for the compounds in this case.

Thus the Supreme Court clearly accepted the principle that, if the compound is patented, there is no invention in the composition and using this principle, looked with favour in the decision rendered by the Federal Court in Agripat.

The applicant's attention is directed to Chapter 8.05.04 of the Manual of Patent Office Practice which reads as follows:

"in view of the Shell Oil v Commissioner of Patents decision, when an inventor has invented a new chemical compound, he may claim either the compound or the compound in admixture with suitable carriers"

In presenting reasons why his application contains patentable subject matter, the Applicant argued, in part, as follows:

. . .

The rejection based on Sandoz v. Gilcross is submitted to be unsustainable. Without any doubt at all, the decision in that case is governed by the particular constraints imposed on an Applicant by the terms of Section 41(1) of the Patent Act. In Shell v. The Commissioner, in addition to various other points noted by the Examiner, a unanimous Court clearly ruled that law developed within the ambit of Section 41(1) has no applicability to situations not governed by those statutory provisions. This Application being concerned with plant growth regulators is not governed by Section 41(1) and hence is beyond the reach of the Sandoz v. Gilcross decision.

The rejection of herbicidal composition claims 1 to 10 in view of Agripat v. Commissioner of Patents on the ground that "there is no further inventive step in the mixture of the compounds defined in claims 1 to 10 with an agriculturally acceptable carrier" flies in the face of the express finding of the Supreme Court of Canada in Shell at page 19 of the judgement of the Court:

"... the appellant's invention in the case of the new compounds did not stop with the creation of the compounds and the patenting of the compounds would not give it protection for its idea. The mixture of the compounds with the appropriate adjuvants was necessary in order to embody the idea in practical form. It cannot therefore be said that in this case there is no inventive step involved in mixing the compounds with carriers appropriate for their application to plants. It is true, as counsel for the Commissioner submitted, that once it is decided that these compounds are to be applied to plants, no inventive step is involved in selecting the appropriate carriers; they are common knowledge in the field. But I think this is to miss the point. A disembodied idea is not per se patentable. But it will be patentable if it has a method of practical application. The appellant has shown a method of practical application in this case."

. . .

It is clear that the election implied by Chapter 8.05.04 of the Manual of Patent Office Practice is the election referred to at page 12 of the Shell judgement "whether to claim for the new compounds or for the compositions containing them" which election the Court found was open to an applicant in a non-Section 41(1) case.

. . .

The Court clearly was aware that it was open to the applicant to apply for the per se compound claims in a divisional application. The Court also recognized implicitly that the appellant's right to the grant of per se compound claims in a divisional application would involve the determination of questions which were not before the Court in the Shell appeal. In applicant's submission the sole effect of those comments in the judgment of the Supreme Court is to make it clear that nothing in the judgment would preclude the applicant, if so advised, from pursuing its right to obtain the grant of per se compound claims in a subsequently filed division application.

There is a further aspect of this Application which the Examiner does not discuss. The compound definition in claim 11 is narrower than that given for the active substances in claim 1. The limiting proviso at the end of claim 11 is not present in claim 1.... The parallel between the application considered by the Supreme Court in Shell and this case is clear: in both the invention disclosed can be characterized as follows:

"The appellant has discovered that compounds having a specific chemical structure have useful properties as plant growth regulators. Although some of these compounds were already known, their usefulness for this particular purpose was not known". (Shell, at page 12).

And further at page 21:

"...I find no obstacle in s. 36 or any other provision of the Act to the grant of a patent to the appellant on these compositions. I make no observation, however, on whether or not the appellant can succeed in a subsequent application for patent on a subordinate element of its invention, namely the compounds themselves. This not before us, the appellant having abandoned such a claim at an early stage of the proceedings."

The corresponding subordinate element of the applicant's invention in the present case is the group of new compounds defined by allowed claim 11.

The official letter appears to suggest that the presence in the application of claim 11 (and claims 12 to 15 which are directed to processes of making the new compounds) provides grounds for rejection of "herbicidal composition" claims 1 to 10.

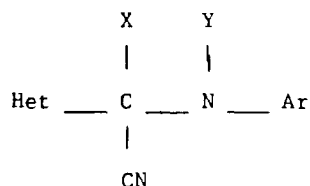
The Manual of Patent Office Procedure as quoted by the Examiner is no authority (as is made clear in its forward).

Shell is not authority for such a proposition since it expressly avoided commenting on what the situation would have been if the per se new compound claims had been contained in the application before the Court.

The relationship of claims 1 to 10 on the one hand, and claims 11 to 16 on the other is not such as to give rise to a direction pursuant to s. 38(2) that the applicant "limit his claims to one invention only" having regard to the characterization by the Supreme Court of Canada of the per se new compound claims as being for a subordinate element of the same invention as that to which the composition claims are directed.

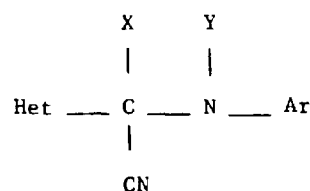
The issue before the Board is whether or not claims 1 to 10, directed to herbicidal compositions, are allowable in the same application as claims 11 to 16 which are directed to the new compounds that may be used in the compositions. Claims 1 and 11 read:

1. A plant growth regulating composition which comprises an agriculturally acceptable carrier and, as active ingredient, a compound of formula I, or an agriculturally acceptable acid addition salt thereof:



in which: Het represents a furyl group, a thienyl group, an alkyl furyl group or an alkyl thienyl group;
Ar represents a phenyl group, a halophenyl group containing one or more halogen atoms, a haloalkylphenyl group, an alkylphenyl group, or an alkoxyphenyl group;
either X represents hydrogen or an alkyl group and Y represents a hydrogen atom or an acyl group derived from a carboxylic acid;
or X and Y together represents a bond.

11. A compound of the general formula I, or an agriculturally acceptable acid addition salt thereof:



in which: Het represents a furyl group, a thienyl group, an alkyl furyl group or an alkyl thienyl group;
Ar represents a phenyl group, a halophenyl group containing one or more halogen atoms, a haloalkylphenyl group, an alkylphenyl group, or an alkoxy phenyl group;
either X represents hydrogen or an alkyl group and Y represents a hydrogenation atom or an acyl group derived from a carboxylic acid,
or X and Y together represent a bond;
provided that if either Y represents a hydrogen atom and X represents a methyl group, or Y represents a hydrogen atom and Het represents an unsubstituted 2-furyl ring, then Ar represents a substituted phenyl group.

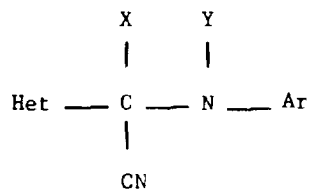
One of the features disclosed and claimed by Applicant is the new use of known compounds as plant regulators. Mme. Justice Wilson in Shell Oil, supra, looked on this type of discovery as adding to available knowledge

relating to such compounds. In her view such recognition of previously unknown properties constituted a "new and useful art". She felt that the combination of the compound possessing such new use with an adjuvant to bring about the new use, need not in itself be novel "... where the inventive ingenuity is in the discovery of the new use and no further inventive step is required... in the preparation of the appropriate compositions".

In addressing the Farbwerke Hoescht and the Agripat decisions, Mme. Justice Wilson distinguished the Farbwerke Hoescht line of cases as falling within Section 41, whereas Agripat did not. She felt that the Section 41 cases did not represent a broad principle that "compositions containing new compounds mixed with an inert carrier were not patentable". We learn from her remarks that regardless of whether a substance is covered by Section 41 or not, when a compound is patented, there is no invention in another application in the composition containing that compound for the same use.

The Applicant argues that this application is not governed by Section 41 with respect to the plant growth regulators of the application. He refers to page 19 of the Shell Oil judgement for a discussion of the significance of the practical application of the idea, which, in that application, was the mixture of the compounds with appropriate adjuvants to obtain the practical form. He stresses that his invention parallels the situation adjudicated in Shell Oil, by pointing out his invention is the discovery that a class of substances has hitherto unknown beneficial properties as plant growth regulators. He notes too that some of his compounds happen to be new.

We see that claim 1 sets out a plant growth regulating composition comprising an agriculturally acceptable carrier, and a compound of formula I or an agriculturally acceptable acid addition salt according to the formula.



We note too that each of the groups X, Y, Het, and Ar, are particularly identified in the claim.

Claim 1 represents a very similar kind of situation referred to in Shell Oil, the mixture of a compound with an acceptable carrier to provide a new use, namely, as a plant growth regulating composition. We see no art has been cited to show that the arrangement of claim 1 has been used for, nor to show that the compound is known to possess, plant growth regulating properties. From the direction given in Shell Oil, the discovery of the new use for the compound points to the invention, and mixing it with an appropriate adjuvant demonstrates the embodiment of the idea. We are persuaded that claim 1 represents an inventive advance under Section 2 of the Act, and, in the absence of any appropriate art showing such knowledge existed may be allowable.

Applicant argues that the compound in claim 11 is narrower in its definition than claim 1, in that the definition as defined for X, Y, and Ar in claim 11 is not present in claim 1. He reasons too that the concept of his main invention is the discovery that a class of substances has new and unknown properties as plant growth regulators. He points to mere happenstance that some of the compounds possessing these properties are new.

The Examiner considers that mixing the compounds defined in claims 11 to 16 with an agriculturally acceptable carrier to obtain the composition in claims 1 to 10, does not represent an inventive step. In Shell Oil, Mme. Justice Wilson summed up the thrust of the appellant's arguments in that case as follows:

"I recognize that these compounds are old; I acknowledge that there is nothing inventive in mixing them with these adjuvants once their properties as plant growth regulators have been discovered; but I have discovered these properties in those old compounds and I want a patent on the practical embodiment of my invention".

She then said:

I think he is entitled to receive it.

We believe that merely mixing the old or new compound within the scope of Applicant's invention does not represent the full scope of the invention. The overriding consideration however, must be to the kind of discovery that Applicant has made and its relationship to the other aspects found in the application. In our view, Applicant has presented in claims 1 to 10 acceptable subject matter for patent, a newly discovered means of regulating plant growth that represents one of the aspects disclosed. Claims 11 to 16, as they are in Applicant's own application do not represent prior art, and therefore for that reason can not hinder the grant of a patent for the subject matter of claims 1 to 10. Given that claims 11 to 16 may represent a subordinate element of Applicant's invention, we note further that they have a restriction not found in claims 1 to 10. Moreover, we find guidance in assessing claims 1 to 16 from the reasoning developed in Shell Oil in referring therein to Lawson v The Commissioner of Patents (1970) 62 C.P.R. 101 at 109:

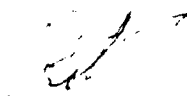
In the earlier development of patent law, it was considered that an invention must be a vendible substance and that unless a new mode of operation created a new substance the invention was not entitled to a patent, but if a new operation created a new substance the patentable invention was the substance and not the operation by which it was produced. This was the confusion of the idea of the end with that of means. However, it is now accepted that if the invention is the means and not the end, the inventor is entitled to a patent on the means.

In our view Applicant's invention, as expressed in claims 1 to 10, is part of the means to achieving the end, as is the particular compound expressed in claims 11 to 16. Each of these groups may recite various aspects, however, when viewed in the overall concept of Applicant's inventive idea, we find no meaningful distinction exists between them that would prevent their acceptance in the same application.

We recommend that the rejection of claims 1 to 10 for not being directed to the inventive concept expressed in claims 11 to 16, be withdrawn.

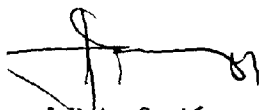


M.G. Brown
Acting Director
Patent Appeal Board



S. D. Kot
Member

I concur with the findings and recommendation of the Patent Appeal Board. Accordingly, I withdraw the rejection of the application and I remand it for prosecution consistent with the recommendation.



J.H.A. Gariépy
Commissioner of Patents

Dated at Hull, Quebec
this 8th day of October 1986.

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