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Datasheet for the decision of 13 April 2010

Case Number: T 0930/07 - 3.2.04

Application Number: 02076949.3

Publication Number: 1260136

IPC: A01K 5/02

Language of the proceedings: EN

Title of invention:
A device for supplying feed to an animal

Patentee:
Lely Enterprises AG

Opponent:
DeLaval International AB

Headword:
Added liquid/LELY

Relevant legal provisions:
EPC Art. 54, 56

Relevant legal provisions (EPC 1973):
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Keyword:
"Novelty (yes)"
"Inventive step (no)"

Decisions cited:
-

Catchword:
-

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Case Number: T 0930/07 - 3.2.04

D E C I S I O N
of the Technical Board of Appeal 3.2.04
of 13 April 2010

Appellant: (Opponent)
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Decision under appeal:
Decision of the Opposition Division of the European Patent Office posted 11 April 2007 rejecting the opposition filed against European patent No. 1260136 pursuant to Article 102(2) EPC.

Composition of the Board:

Chairman: M. Ceyte
Members: P. Petti
T. Bokor

Summary of Facts and Submissions

I. An opposition filed against the European patent EP-B-1 260 136 was rejected by the opposition division with its decision dated 11 April 2007.

Granted claim 1 reads as follows:

"1. A device for supplying an amount of feed to animals, said device being provided with:

an animal identification device (16, 17) for identifying an animal,
a computer (21) with a memory (20), the memory (20) containing consumption related data of the animals, the computer (21) generating a signal for supplying an amount of feed to a relevant animal with the aid of data from the animal identification device (16, 17) and data from the memory (20), a feed metering device (14) controlled by the computer (21), and a device (19) for supplying liquid controlled by the computer (21),

characterized in that the data from the memory (20) contain per animal data in relation to the feed intake in dependence of the amount of liquid added; and in that the device (19) for supplying liquid adds an amount of liquid to the amount of feed with the aid of data from the animal identification device (16, 17) and the relevant data from the memory (20).

II. On 5 June 2007 the opponent (hereinafter appellant) lodged an appeal against this decision and simultaneously paid the appeal fee. A statement setting out the grounds of appeal was received on 11 July 2007.

With the grounds of appeal the appellant filed *"Feeding Strategy for the High Yielding Dairy Cow"*, W.H. Broster et al, 1979, "Contents" and pages 386 and 387 (hereinafter document D9).

III. Oral proceedings took place on 13 April 2010.

IV. The appellant requested that the decision under appeal be set aside and the patent be revoked.

The respondent (patent proprietor) requested that the appeal be dismissed.

V. The appellant essentially submitted that the claimed subject-matter was not novel over EP-A-67 960 (D1), WO-A-96/05723 (D2) or DK-B-172 730 (D8) and did not involve an inventive step starting from D2 and having regard to D9 and to the document *"Moistening Concentrate Feedstuffs in Milking Parlours"*, in *"Fifth All-Union Symposium on the Machine Milking of Agricultural Animals"*, Moscow, 1979 (D5).

The respondent essentially submitted the following arguments:
D2 does not lead the skilled person to look for individual moisture values. D5 does not provide them. The only teaching that can be drawn from D9 is that "a minority of cows fail to accept wet feed systems". The

use of such systems is further discounted by the statement that "the provision of liquid feed to the dairy cows does not itself solve the problems of feed intake to high yielding cows during short feeding periods". No combination of these documents can lead the skilled person to the solution presently claimed without requiring a further inventive step.

Reasons for the Decision

1. The appeal is admissible.

2. *Novelty (Article 54 EPC)*

2.1 The subject-matter of claim 1 is novel over D1 and D8:

D1 discloses (see particularly Figure 1) a device for supplying an amount of feed (liquid milk) to animals, said device being provided with an animal identification device and a sequential circuit which generates a signal for supplying an amount of feed to a relevant animal with the aid of data from the animal identification system. The sequential circuit of D1 is not a computer with a memory as defined in claim 1.

D8 discloses (see particularly Figure 1) a device for supplying an amount of feed to animals, said device being provided with an animal identification device, a computer (3) with a memory, a device for supplying feed ("concentrate 5a, 6a") provided with a feed metering device ("electric weighting cell" 31) controlled by the computer (3) and a device for supplying an additive (7a, 8a) controlled by the computer, wherein the

additives are dispensed by conveyor screws (12, 13). However, D8 does not clearly and unambiguously disclose a device in which the computer memory contains per animal data in relation to the feed intake in dependence on the amount of liquid added.

2.2 The claimed subject-matter is also novel over D2 as explained below in the section relating to inventive step.

3. *Inventive step (Article 56 EPC)*

3.1 Document D2, which is considered to be the closest prior art, discloses (see particularly Figure 1) a device for supplying an amount of feed to animals, provided with an animal identification device (23,24) for identifying an animal, a computer with a memory, a feed metering device (21) and a device (20) for supplying liquid. The feed metering device (21) and the device (20) for supplying liquid are controlled by the computer.

The memory of the computer contains per animal consumption related data (see page 8, lines 26 to 28), i.e. data in relation to the feed intake of each animal.

In this device, the computer generates a signal for supplying an amount of feed to a relevant animal with the aid of data from the animal identification system and data from the memory. In particular, the amount of feed supplied to each individual animal is determined in the computer on the basis of data concerning the

relationship between productivity and related feed consumption.

The device (20) for supplying liquid adds an amount of liquid to the amount of feed in order to increase the rate at which the fodder is eaten (see particularly page 5, lines 21 to 24; page 10, lines 2 to 5).

3.2 The subject-matter of claim 1 differs from this prior art in that the per animal data in relation to the feed intake are "in dependence of [*sic*] the amount of liquid added" and in that the amount of liquid is added "with the aid of the animal identification device (16, 17) and the relevant data from the memory (20)".

As a consequence of these features, the degree of moistening of the feed can be attuned to the preference of the individual animal such that the eating rate of each animal can be optimized.

Therefore, the problem to be solved by the present invention is to improve the effectiveness of the known feeding device so as to obtain an optimal eating behaviour of each animal which can consume its amount of feed at an optimum eating rate.

3.3 Documents D5 and D9 reflect the general technical knowledge in the field of nutrition for dairy cows.

In D5, which refers to investigations made in order to select an optimal degree of feed moistening for dairy cows, it is stated that "[t]he feeding of dry feedstuffs ... adversely affects the productivity of milking units, since high-producing cows are not able

to eat the proper amount during the milking period". In order to determine the optimum degree of moistening, mixtures having different ratios of water to concentrate feedstuff were fed to cows and a relationship between the eating rate of the animals and the ratio of water to concentrate feedstuff was established (see particularly page 2, line 9 to page 3, line 9) so that the ratio at which the eating rate of the animals reached a maximum was determined. This represents the determination of a relation between the amount of dry feedstuff and the amount of added water. The investigations referred to in D5, which is dated 1979, were carried out on a herd of 200 cows. The optimal degree of feed moistening was determined for the whole herd.

In D9, which deals with the effect of wet or liquid diets for milking cows and makes it clear that wetter feeds allow more rapid ingestion with respect to dry feed, it is stated that "there are large and significant differences between cow variations in consumption rate and a minority of cows fail to accept wet feeding systems". Thus, different cows have different preferences with respect to the moisture content of the feed.

3.4 In the device according to D2, individual amounts of dry feed, such as concentrate, are supplied to identified animals with the aid of the animal identification device and data from the memory of the computer, which relate to the feed intake of the identified animal. Moreover, the device for adding liquid to the fodder is controlled by the computer.

Starting from this closest prior art, the skilled person seeking for a solution of the above mentioned technical problem, on the basis of his knowledge about wet feeds for cows as reflected by D9 and D5, would immediately realize that an optimal feed moistening has to be selected for each animal in order to optimize the eating rate. Thus, the skilled person - without exercising any inventive skill - would adapt the D2 device so as to thereby ensure that for each cow an individualized amount of liquid is added to the dry feed. Since in the D2 device individual amounts of dry feed are supplied to identified animals with the aid of the animal identification device and data from the memory of the computer, the skilled person would also ensure that for each animal the optimum ratio of liquid to dry feed be stored in the memory together with the data relating to feed intake of the relevant animal so that these data can be retrieved and applied for an identified animal. In doing so, the skilled person would provide the computer memory in the D2 device with data in relation to the feed intake in dependence on the amount of liquid added and ensure that the amount of liquid is added to the feed with the aid of the animal identification device and the relevant data from the memory of the computer, i.e. he would arrive at a device falling within the terms of claim 1.

It is true that D5 does not operate with identification means, so that the optimum ratio of liquid to dry feed is determined for the whole herd. However, a skilled person knowing D2 and reading D5 would immediately realize that the moistening degree of feed can be adapted per animal, because D2 is set up to serve animals individually. The skilled person would

therefore adapt the D2 apparatus to ensure that each cow would receive an individual amount of feed having an individually adapted moisture content.

3.5 In this respect, the respondent essentially submitted the following arguments:

(i) Since on page 386 of D9 it is stated that "the provision of liquid feed to the dairy cows does not in itself solve the problems of feed intake to high yielding cows during short feeding periods", this document does not lead the skilled person to look for individual feed moistening.

Moreover, the summary given on page 387 refers to the advantages of the processing of concentrate feed and thus teaches away from the invention by focussing in processing of dry feed.

(ii) The feature in claim 1 that "the data from the memory (20) contain per animal data in relation to the feed intake are in dependence of the amount of liquid added" means that the memory contains for each animal a range of values, i.e. at least two values of the feed intake and two values relating to the amount of liquid to be added, so that a relation of the data relating to the feed intake in dependence of the amount of liquid can be established and the amount of liquid added can be varied in dependence on the amount of feed actually consumed by the relevant animal.

In other words, Claim 1 defines an adaptive system in which data related to the actual feed intake in dependence on the amount of added liquid are stored and updated in order to allow that not only the amount of feed but also the amount of liquid added to be varied.

Thus, even if the skilled person were to apply the teaching of D9 and D5 to the device of D2, he would not arrive at the claimed subject-matter.

3.6 The board cannot accept these arguments for the following reasons:

(i) Document D9 clearly provides the general teaching that different animals respond differently to the degree of feed moistening.

The sentence on page 386 referred to by the respondent has to be read in the context of the whole paragraph which refers to "large and significant difference ... in consumption rate ..." and to previous trials "in which 21 of 98 experimental cows did not eat their allowance of liquid feed". Thus, the sentence referred to by the respondent is not inconsistent with the above mentioned general teaching.

The summary on page 387 of D9 refers the advantages of "concentrate feed". The term "concentrate feed" has to be read within the context of the whole paragraph 6 headed "Effect of wet or liquid diets", which is a section of Chapter 16 headed "Concentrates". Paragraph 6

generally refers to "concentrates" and clearly distinguish between "dry feed (greater than 80% DM)", "wetter feeds (less than 60% DM)" and "liquid feeds (mixtures of concentrates/10 kg water)". Thus the term "concentrate feed" in the summary referred to by the respondent does not mean "dry feed".

(ii) Claim 1 neither refers to nor implies a range of values for the amount of liquid added which are stored in the memory or the possibility of varying this amount in dependence on the amount of feed actually consumed by the relevant animal.

The device defined in claim 1 does not comprise means for measuring the amount of feed actually consumed by an animal or a system for continuously updating the data in the computer memory. These features are not claimed in claim 1 but in dependent claims 9 and 10.

3.7 Since the subject-matter of claim 1 lacks an inventive step (Article 56 EPC), the ground for opposition according to Article 100(a) EPC prejudices the maintenance of the patent.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chairman:

G. Magouliotis M. Ceyte