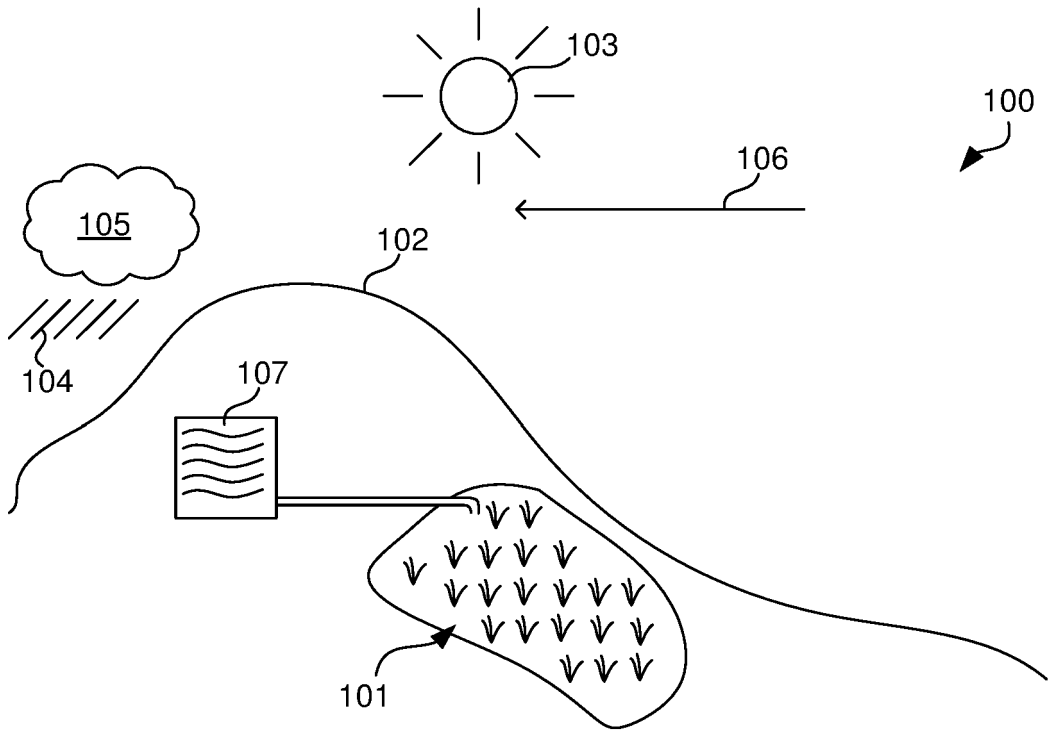

Prior art

Fig. 1

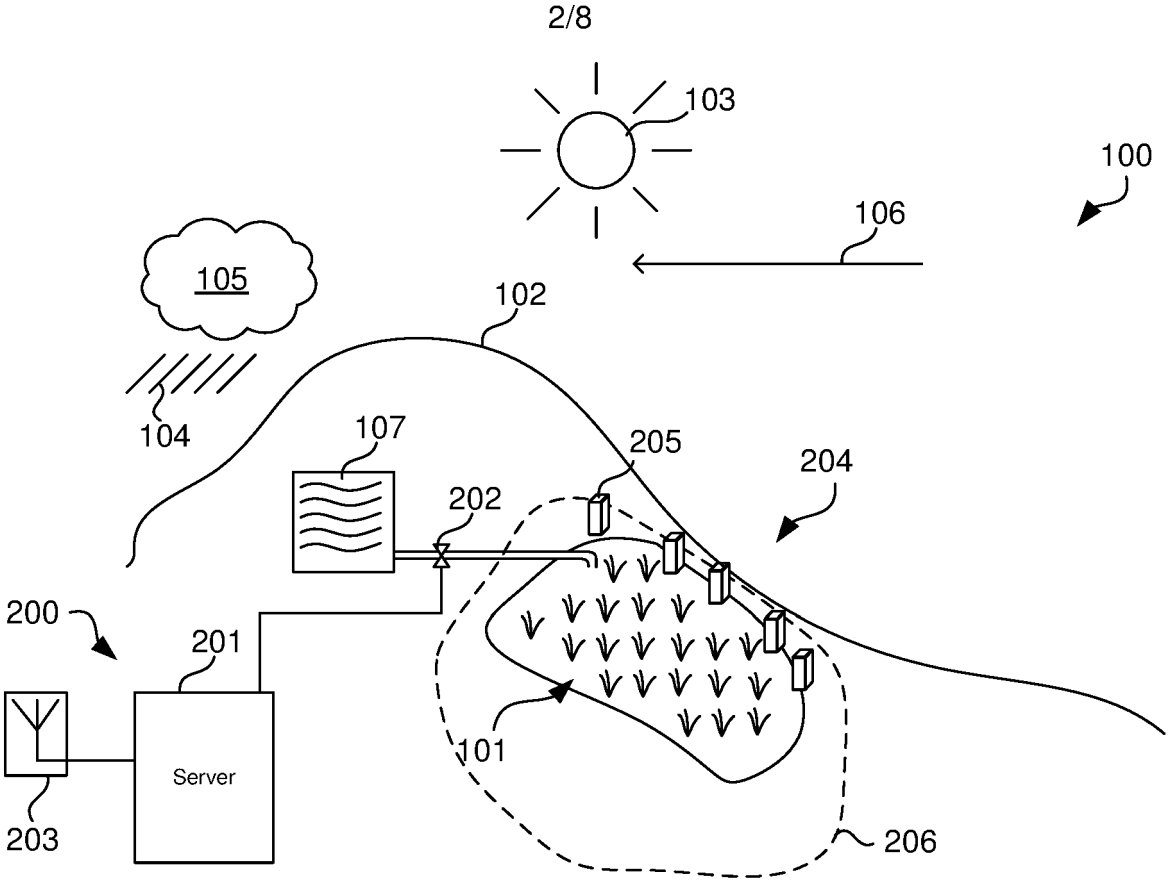
103
100
106
105
102
104
107
205
204
202
200
201
Server
203
101
206

Fig. 2

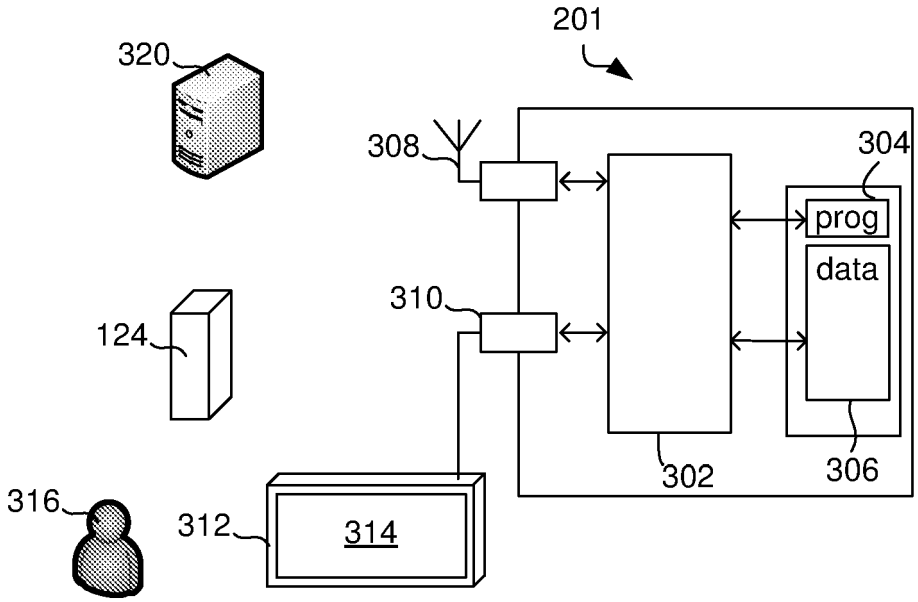
201
320
308
304
prog
data
310
124
302
306
316
312
314

Fig. 3

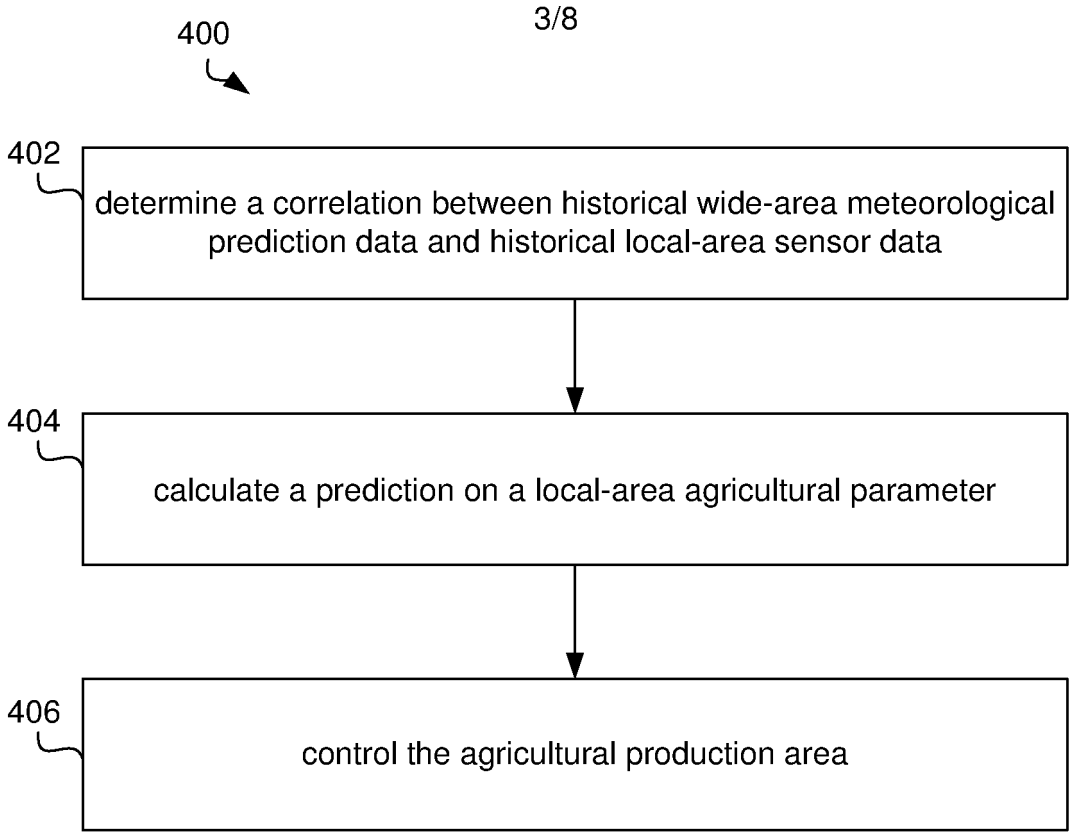
400
402
determine a correlation between historical wide-area meteorological prediction data and historical local-area sensor data
404
calculate a prediction on a local-area agricultural parameter
406
control the agricultural production area

Fig. 4

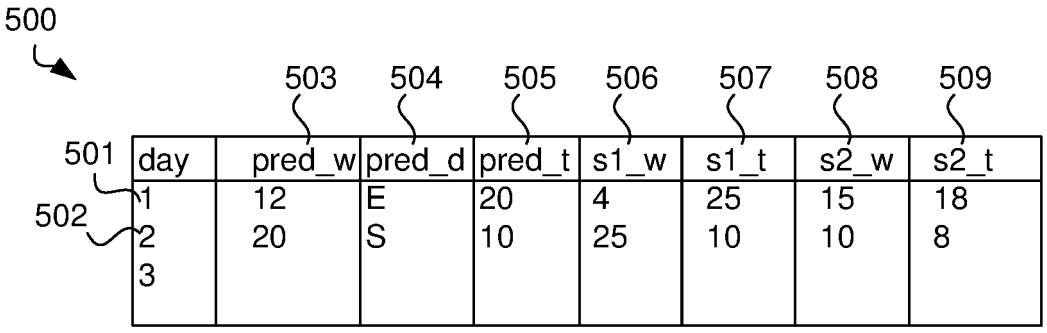
500
503
504
505
506
507
508
509
501
502
day
pred_w
pred_d
pred_t
s1_w
s1_t
s2_w
s2_t
1
12
E
20
4
25
15
18
2
20
S
10
25
10
10
8
3

Fig. 5

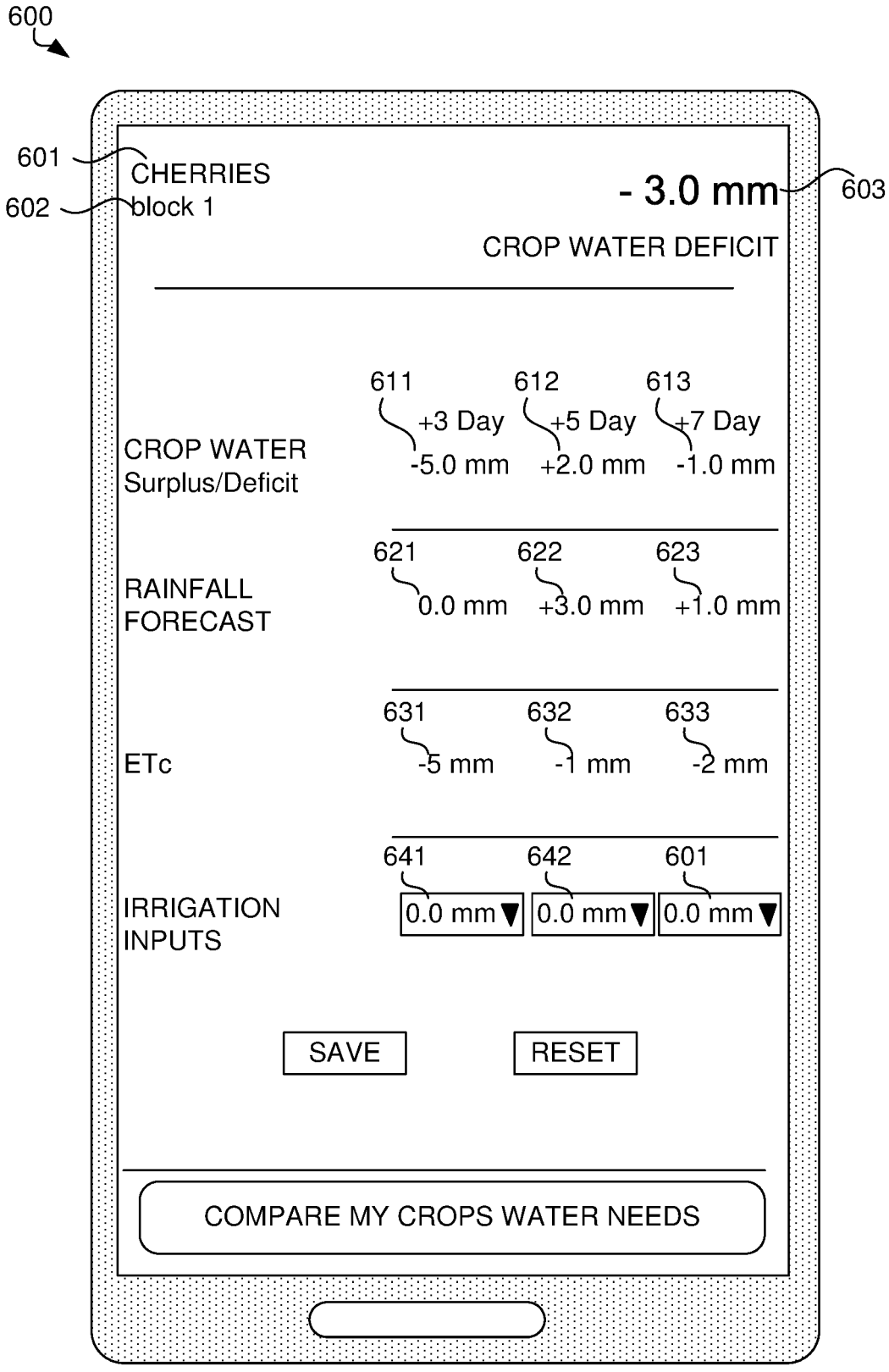
600
601
602
CHERRIES
block 1
- 3.0 mm
603
CROP WATER DEFICIT
611
612
613
+3 Day
+5 Day
+7 Day
CROP WATER
Surplus/Deficit
-5.0 mm
+2.0 mm
-1.0 mm
621
622
623
RAINFALL
FORECAST
0.0 mm
+3.0 mm
+1.0 mm
631
632
633
ETc
-5 mm
-1 mm
-2 mm
641
642
601
IRRIGATION
INPUTS
0.0 mm
0.0 mm
0.0 mm
SAVE
RESET
COMPARE MY CROPS WATER NEEDS

Fig. 6

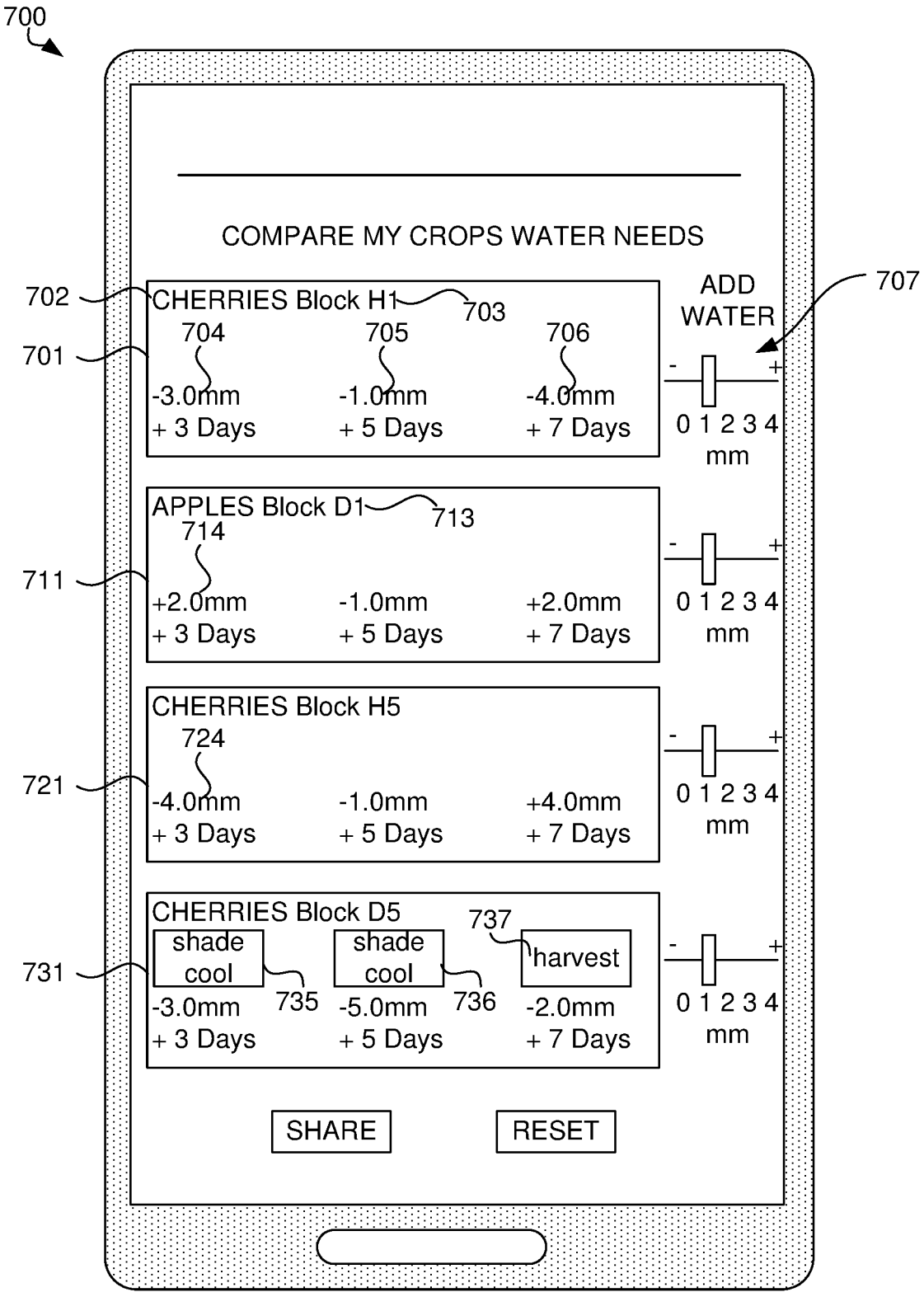
700
COMPARE MY CROPS WATER NEEDS
702
CHERRIES Block H1
703
704
705
706
701
-3.0mm
+ 3 Days
-1.0mm
+ 5 Days
-4.0mm
+ 7 Days
ADD
WATER
707
- +
0 1 2 3 4
mm
APPLES Block D1
713
714
711
+2.0mm
+ 3 Days
-1.0mm
+ 5 Days
+2.0mm
+ 7 Days
CHERRIES Block H5
724
721
-4.0mm
+ 3 Days
-1.0mm
+ 5 Days
+4.0mm
+ 7 Days
CHERRIES Block D5
737
shade
cool
shade
cool
harvest
731
735
736
-3.0mm
+ 3 Days
-5.0mm
+ 5 Days
-2.0mm
+ 7 Days
SHARE
RESET

Fig. 7

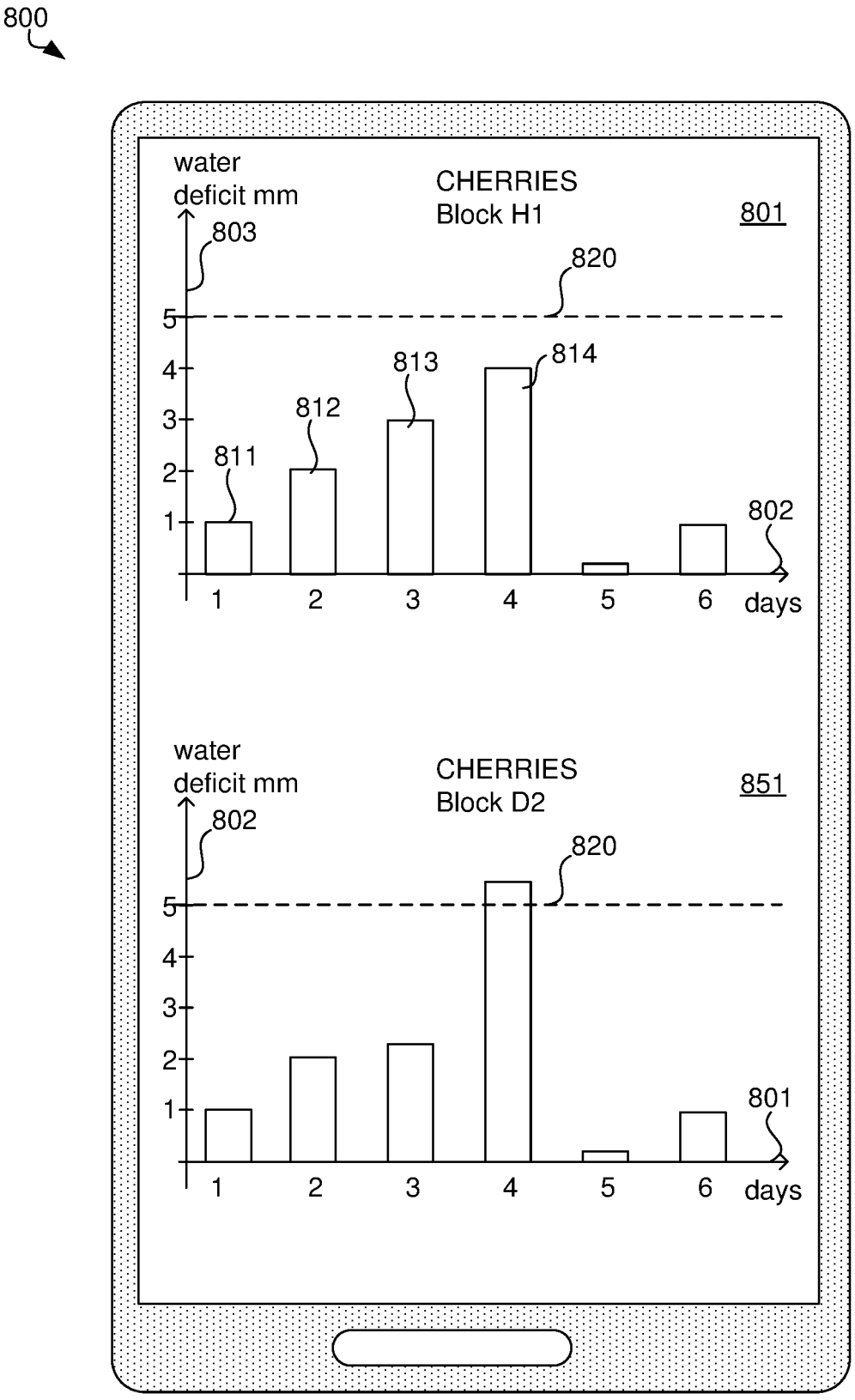
800
water
deficit mm
CHERRIES
Block H1
801
803
820
5
4
3
2
1
811
812
813
814
802
1
2
3
4
5
6
days
water
deficit mm
CHERRIES
Block D2
851
802
820
5
4
3
2
1
801
1
2
3
4
5
6
days

Fig. 8

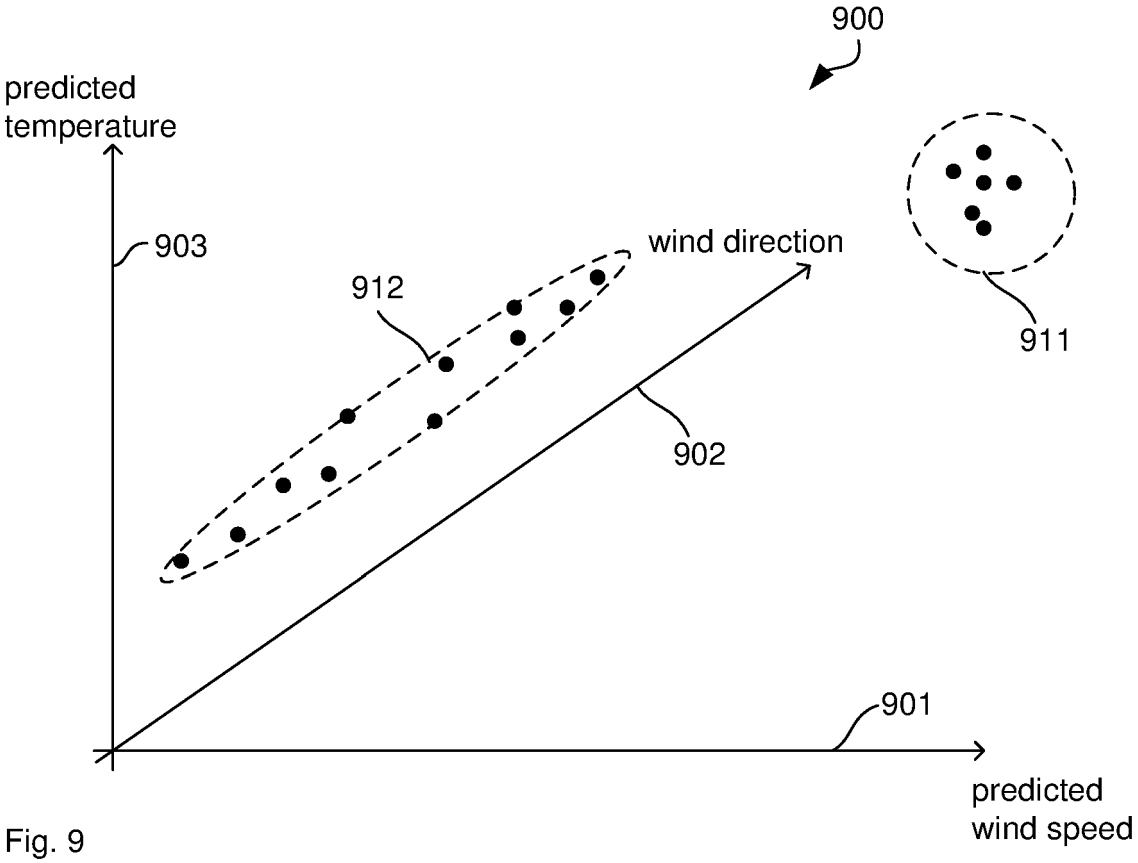
900
predicted
temperature
903
912
wind direction
911
902
901
predicted
wind speed

Fig. 9

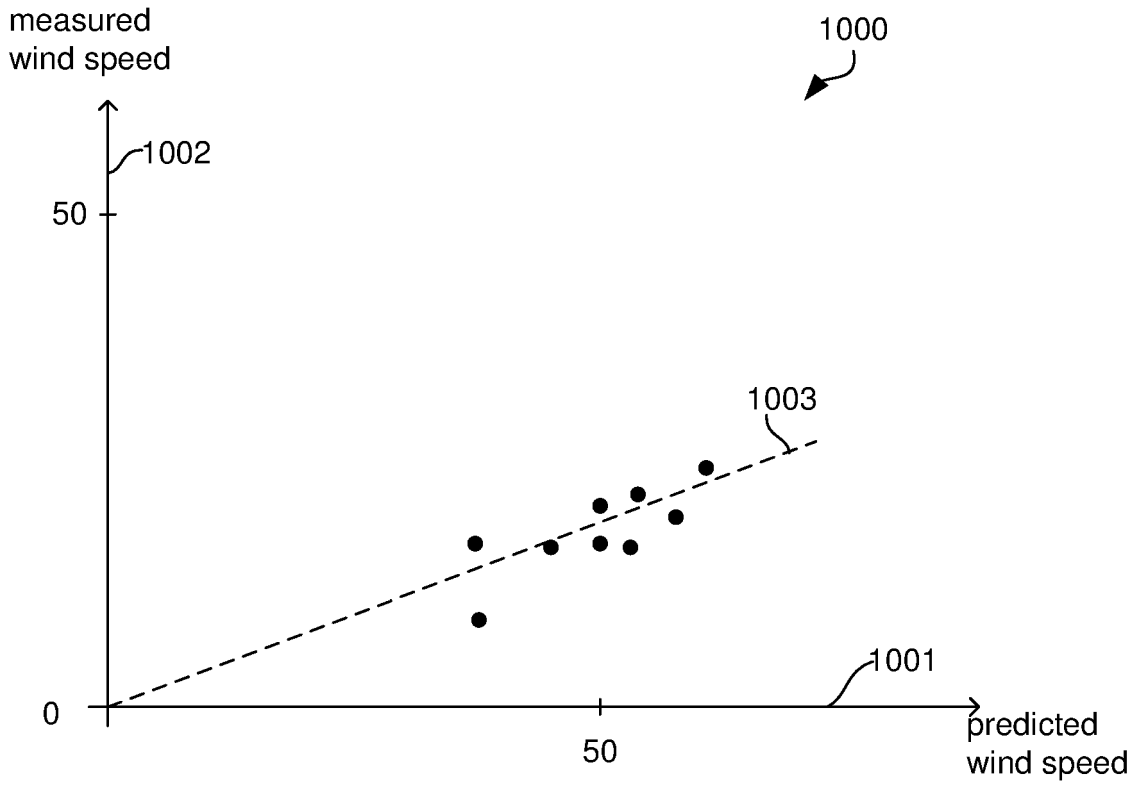
measured
wind speed
1000
1002
50
1003
1001
0
50
predicted
wind speed

Fig. 10

1100

Predicted: / Measured:	Wind	Temperature	Rain
Temperature	0.01	0.59	0.34
Relative Humidity	0.72	0.87	0.76
Wind	0.24	0.10	0.55
Rain	0.75	0.45	0.56
Leaf Wetness	0.87	0.72	0.21
Solar irradiation	0.58	0.51	0.88
Photosynthetic Active Radiation	0.98	0.54	0.76
Frost	0.23	0.59	0.85
Soil Moisture	0.89	0.54	0.53
Soil Temperature	0.93	0.91	0.56

Fig. 11