

1 **Supplementary Information**

2 **Fate of a novel strobilurin fungicide pyraoxystrobin in flooded soil**

3

4 Tilong Yang[†], Chao Xu[†], Xunyue Liu[†], Xia Chen[†], Jianbo Zhang[†], Xingcheng Ding^{*†}

5 [†]Institute of Nuclear Agricultural Sciences, Key Laboratory of Nuclear Agricultural

6 Sciences of Ministry of Agriculture, Zhejiang University, Hangzhou 310029, China

7

8

9

10

11

12

13

14

15

16

* Corresponding Author: Institute of Nuclear Agricultural Sciences, Zhejiang

University, Kaixuan Road No. 268, Hangzhou 310029, Zhejiang Province, China;

Phone: +86-571-86971201; Fax: +86-571-86971421;

E-mail: dingxch@zju.edu.cn

17 Text S1 Details of High Performance Liquid Chromatography (HPLC) analysis
18 The Waters 2695 multisolvent delivery unit includes a Waters 2998 photodiode
19 array (PDA) detector (Waters, Milford, MA,U.S.A.) at 254 nm and a Diamonsil C₁₈
20 column (5µm, 250×4.6 mm, Dikma Technologies, Lake Forest, CA, U.S.A.) with a
21 C₁₈ protection column (5 µm, 30×4.6 mm, Dikma Technologies). The column
22 temperature was maintained at 25 °C. The HPLC condition was shown in table S1.

23

24 Table S1 HPLC conditions used in the quantification of pyraoxystrobin

Elutiontime	Flow(mL/min)	A%	B%
0	1.00	20	80
20	1.00	75	25
60	1.00	75	25
65	1.00	100	0
70	1.00	100	0
75	1.00	20	80
80	1.00	20	80

25 The letter A represents methanol + 0.1% acetic acid.

26 The letter B represents H₂O + 0.1% acetic acid.

27

28

29

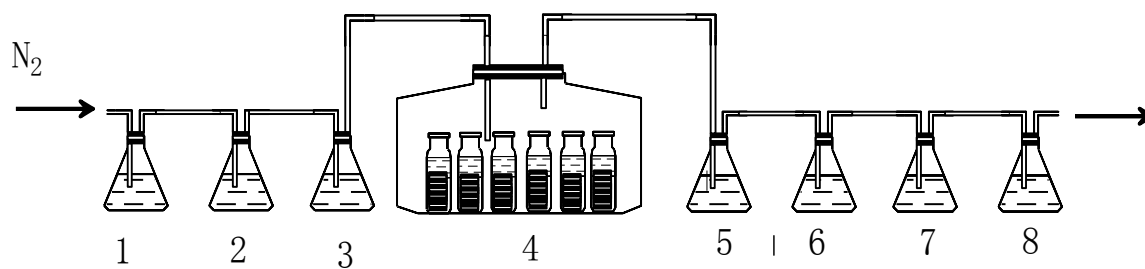
30

31

32

33

34



35

36 Fig. S1 Flow-through apparatus for studying the dissipation of pyraoxystrobin in

37 flooded soils. 1-2: 0.5M NaOH 3: Water 4: Vacuum desiccator 5: Ethylene

38 glycol 6: H_2SO_4 (50%) 7-8: 0.2M NaOH

39

40

41

42

43

44

45

46

47

48

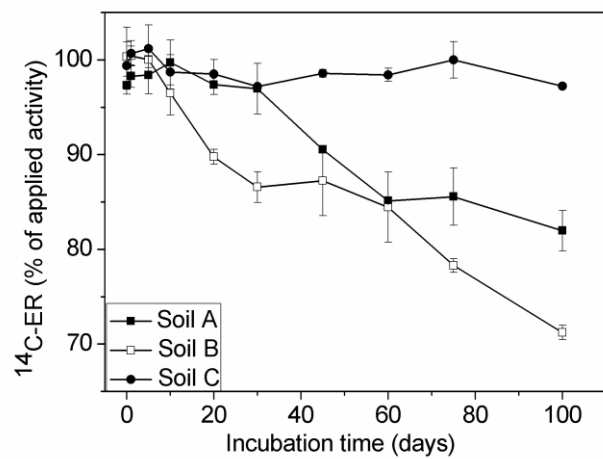
49

50

51

52

53



54

55 Fig. S2 Loss of extractable residues in flooded soils treated with

56 ^{14}C -pyraoxystrobin.

57

58

59

60

61

62

63

64

65

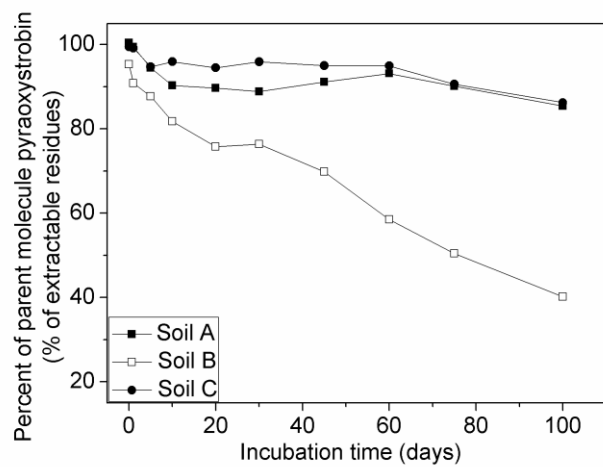
66

67

68

69

70



71

72 Fig. S3 Distribution of pyraoxystrobin as a percentage of extractable residues in
73 flooded soils over the incubation period.

74

75

76