Regression equations between the measured 0-5 cm soil temperature values under the newly covered plastic film (y) and those without plastic film covering (x) from September 10, 2016 to September 28, 2016:

Time (h): Equation, R2

0 h: y=1.203x-3.8682, R2=0.9288

1 h: y=1.1832x-3.3898, R2=0.9359

2 h: y=1.1718x-3.0828, R2=0.9379

3 h: y=1.1523x-2.7254, R2=0.9471

4 h: y=1.2225x-4.2052, R2=0.9537

5 h: y=1.163x-3.073, R2=0.9584

6 h: y=1.1864x-3.5379, R2=0.9311

7 h: y=1.177x-3.2208, R2=0.9738

8 h: y=1.2421x-4.552, R2=0.9724

9 h: y=1.1858x-3.3079, R2=0.9286

10 h: y=1.3304x-5.8635, R2=0.9197

11 h: y=1.3767x-6.9034, R2=0.9394

12 h: y=1.5941x-11.359, R2=0.971

13 h: y=1.5959x-11.855, R2=0.937

14 h: y=1.7654x-15.497, R2=0.9442

15 h: y=1.8087x-16.585, R2=0.9523

16 h: y=1.9561x-19.872, R2=0.9438

17 h: y=1.8033x-16.564, R2=0.931

18 h: y=1.6008x-11.862, R2=0.9528

19 h: y=1.4936x-9.7408, R2=0.9105

20 h: y=1.3393x-6.4503, R2=0.9139

21 h: y=1.2999x-5.7053, R2=0.9235

22 h: y=1.2581x-4.7849, R2=0.9281

23 h: y=1.2191x-4.0774, R2=0.9268

Regression equations between measured air temperature (y) and 0-5 cm soil temperature (x) from September 10, 2016 to September 28, 2016 (both of which were under the newly covered plastic film):

Time (h): Equation, R2

0 h: y=0.8494x+1.8987, R2=0.8575

1 h: y=0.8204x+2.4469, R2=0.8463

2 h: y=0.8524x+1.7783, R2=0.8403

3 h: y=0.8605x+1.5379, R2=0.7901

4 h: y=0.8688x+1.3451, R2=0.782

5 h: y=0.9191x+0.3147, R2=0.7985

6 h: y=0.974x-0.8207, R2=0.8313

7 h: y=1.0053x-1.3928, R2=0.8706

8 h: y=0.933x+0.6712, R2=0.9652

9 h: y=1.4411x-8.6729, R2=0.7947

10 h: y=1.4874x-9.1498, R2=0.7977

11 h: y=1.5967x-11.793, R2=0.8637

12 h: y=1.6719x-13.907, R2=0.9031

13 h: y=2.0394x-23.049, R2=0.9394

14 h: y=1.5758x-12.589, R2=0.9461

15 h: y=1.5207x-11.826, R2=0.9753

16 h: y=1.4404x-10.435, R2=0.9596

17 h: y=1.1236x-3.0301, R2=0.9729

18 h: y=1.0156x-0.9685, R2=0.9832

19 h: y=0.8693x+1.7248, R2=0.9747

20 h: y=0.7982x+3.0013, R2=0.944

21 h: y=0.7782x+3.3322, R2=0.9096

22 h: y=0.8194x+2.3823, R2=0.899

23 h: y=0.8359x+2.1177, R2=0.878