

Table S1 Meteorological and soil data of each location along with GPS co-ordinates

| S.No | Location | Longitude | Latitude | Temperature | Rainfall (mm) | Soil type |
|------|--------------------------|-----------|----------|---------------------------|---------------|----------------------------|
| 1 | Coimbatore, Tamil nadu | 76.96 | 11.00 | 19-36°C with mean of 27°C | 952 | Clay, pH 8.36 |
| 2 | Chinsurah, West Bengal | 88.38 | 22.91 | 13-36°C with mean of 27°C | 1656 | Clay loam pH 7.6 |
| 3 | Pattambi, Kerala | 76.20 | 10.81 | 23-35°C with mean of 29°C | 2882 | Sandy loam pH 7.1 |
| 4 | Ragolu, Andhra Pradesh | 80.00 | 16.00 | 20-34°C with mean of 28°C | 974 | Red sandy clay loam pH 7.8 |
| 5 | Ranchi, Jharkhand | 85.29 | 23.34 | 10-37°C with mean of 24°C | 1358 | Sandy loam pH 6.20 |
| 6 | Raipur, Chattisgarh | 81.63 | 21.25 | 14-42°C with mean of 28°C | 1401 | Sandy loam pH 7.4 |
| 7 | Rajendranagar, Telangana | 78.41 | 17.31 | 15-41°C with mean of 27°C | 745 | Clay loam pH 7.8 |
| 8 | Warangal, Telanagana | 79.35 | 17.96 | 15-42°C with mean of 28°C | 1020 | Clay loam pH 7.3 |

Table S2: List of hybrids and varieties grown at each location

| Location | Season and Year | Hybrid | Variety |
|---------------------|---------------------------|------------|-------------------------------|
| Rajendranagar (RNR) | WS 2008;WS 2009 | PA 6201 | Sumathi |
| | 2010; 2011; 2012 | KRH2 | RNR 2465 (Sugandha Samba) |
| Chinsurah (CHN) | WS 2009; 2010 | KRH2 | Swarna |
| | DS 2010;2011 | KRH2 | Swarna |
| Ragolu (RGL) | WS 2008; WS 2009; DS 2009 | Arize 6444 | Swarna |
| | DS 2010; Ds 2011 | Arize 6444 | MTU 1010 (Cotton dorasannalu) |
| | DS 2012 | KRH2 | MTU 1010 (Cotton dorasannalu) |
| Pattambi(PTB) | DS 2010 | CORH3 | Jyothi |
| | DS 2008; DS 2009 | CORH2 | Jyothi |
| Warangal (WGL) | DS 2008 | Bharat | WGL 32100 |
| Raipur(RPR) | WS 2012; WS 2013 | KRH2 | Swarna |

Table S3: The package of practices followed in each cultivation system

| Details of treatments | Conventional method of rice cultivation | System of Rice Intensification (SRI) method |
|-------------------------------|--|--|
| Seed rate for nursery (kg/ha) | 35 – 40 | 5 – 6 |
| Seedling age (days) | 21 – 30 | 8 – 12 |
| Transplanting (seedling/hill) | 3 – 4 | 1 |
| Spacing (cm) | 20 x 10 | 25 x 25 |
| Weed control | Herbicides followed by spot weeding | Use a cono weeder three to four times in both directions to uproot and incorporate the weeds in to soil and most importantly, aerate the soil. Start cono weeding 10 – 15 days after transplanting. |
| Water management | Keep water level 5 ± 2 cm up to 7 days before harvesting. | No standing water during growth period. Intermittent wetting and drying until panicle initiation (saturated field condition). After panicle initiation. 1 – 2 cm of water is kept for about three weeks. |
| Nutrient management | Compost is used along with recommended chemical fertilizers depending upon the soil fertility. | Use straw, green manure and animal manure to enrich the organic content of the soil for promoting populations of earthworms, microorganisms and to facilitate nutrient availability. Use reduced amounts (less than 50%) of chemical fertilizer on need basis. |

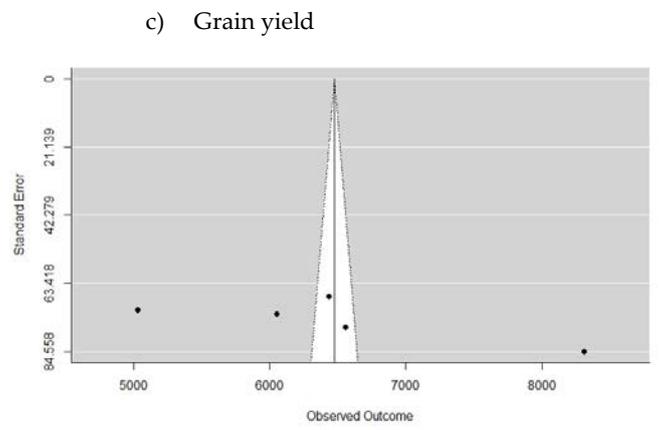
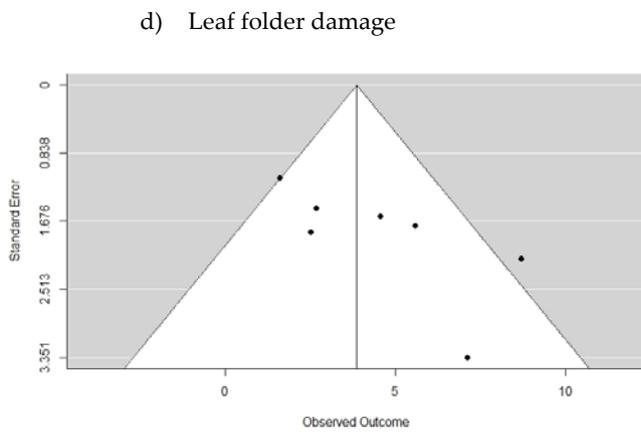
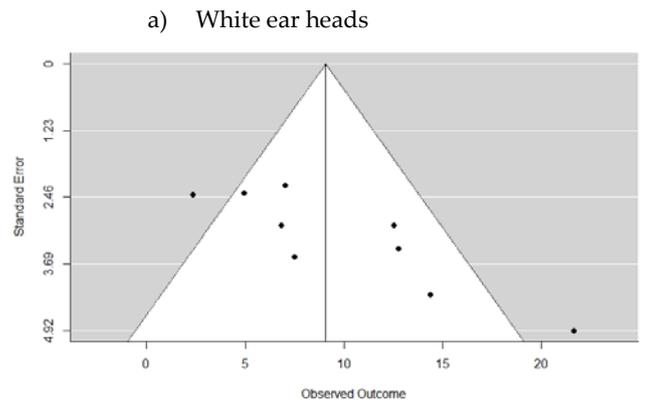
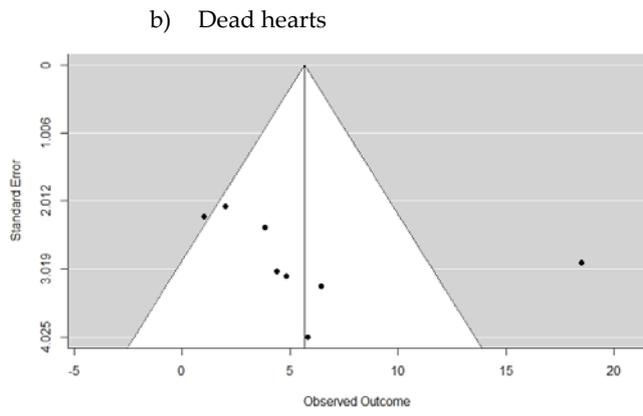


Figure S1: Funnel shaped scatter plot of meta-analysis data