Frogeye leaf spot (FLS), and Septoria Brown spot (SBS), caused by foliar pathogens Cercospora sojina and Septoria glycines are economical important disease of soybean (*Glycine max* L.). Artificial inoculation is important in case natural infection does not occur, in the fungicide efficacy trails. Different culture media have been used to enhance FLS sporulation. Likewise, fungal/conidia suspension have been used as inoculum for the field trails. PDA, SSLB, DV8, and DV8 with filter paper-media, were tested at different light regimes at 25 °C for 14 d (12 h dark–12 h light, 24 h light, and 24 h dark) for conidia production. The best regime was 12 h dark–12 h light with mean conidia production of 15.94. The best culture media were SSLB (24.72), DV8 (24.28), DV8 filter paper (16.96) and PGM (12.20), which were not different among them but all different with PDA (3.68 conidia/hematocytometer field), which was the worst media to produce conidia. Sorghum, proso millet, and long rice (pre-test needed) were tested as spawn grain for FLS and SBS inoculum increase under two inoculation methods: media plug and conidia suspension; incubated at dark–light at 25°C with jars upside down and the colonization percent (CP) evaluated visually at 14 and 28 DAI. The best substratum for both fungal pathogens were sorghum, and all its combinations with suspension inoculation at 14 DAI. The best type of inoculum of both foliar fungal pathogens Cercospora sojina and Septoria glycines were conidia suspension. The best substratum for both fungal pathogens were sorghum, and rice at 30 DAI, along all possible combinations. Long rice presented contaminations suggesting it has potential to be used but it has to be standardized beforehand. Non any substratum, produced conidia at 28 DAI.

~~Fungal colonization (FC) was 61% for suspension, and 41% for plug and it was significant for condition (p= 2.00E-09). FC was 72% for sorghum, 43% millet, and 37% rice and it was significant for substratum. FC was 60% for FLS, and 44% for SBS and it was significant for pathogen (p=0.00027). FC was significant for the 3three possible combinations (p=110^-05), all~~ **~~at 14 DAI~~**~~. FC was 96% for suspension, and 86% for plug and it was significant for condition (p=6.310^-05). FC was 95% for sorghum, 88% millet, and 88% rice and it was significant for substratum. FC was XX for FLS, and X% for SBS and it was not significant difference. FC did not show statistical difference on the 3three possible combinations, all at 28 DAI.~~