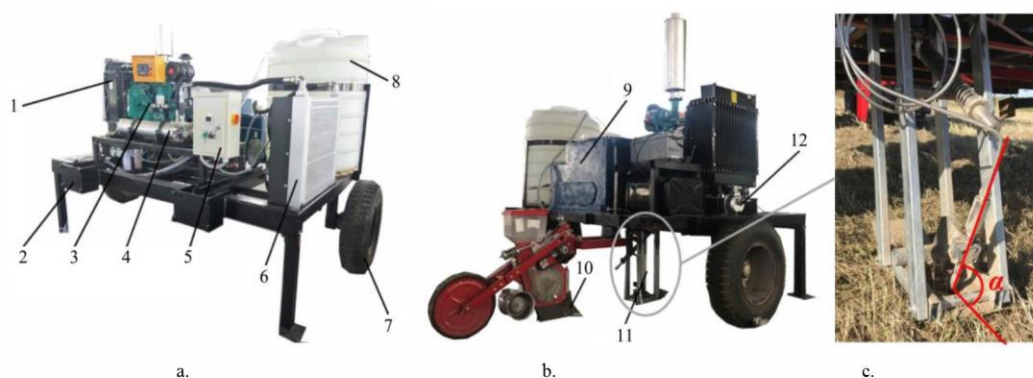


Hu H N, Li H W, Wang Q J, He J, Lu C Y, Wang Y B, et al. Anti-blocking performance of ultrahigh-pressure waterjet assisted furrow opener for no-till seeder. *Int J Agric & Biol Eng*, 2020; 13(2): 64–70.



1. Diesel engine cooling system 2. Frame 3. Diesel engine 4. Intensifier pump system 5. Electric control system 6. Air cooling system for hydraulic oil 7. Wheel 8. Water tank 9. Hydraulic oil tank 10. Furrow opener 11. Compaction sliding board for cutting head 12. Water pump: jet impingement angle

Figure 1 Prototype of ultrahigh-pressure waterjet assisted furrow opener



Figure 3 Field experiments for different type of furrow opener coordinate with UHP waterjet

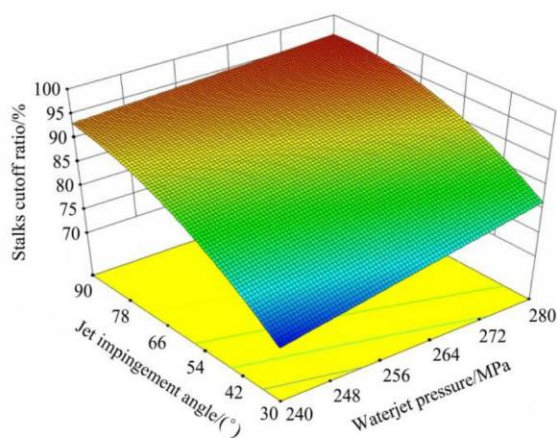


Figure 4 Effects of waterjet pressure and jet impingement angle on stalks cutoff ratio (forward speed = 4 km/h)

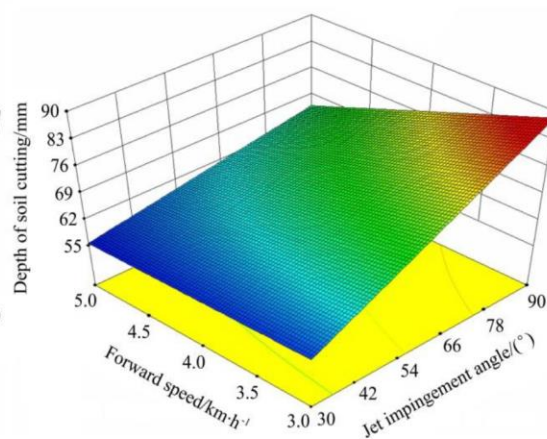


Figure 5 Effects of jet impingement angle and forward speed on depth of soil cutting (waterjet pressure = 260 MPa)



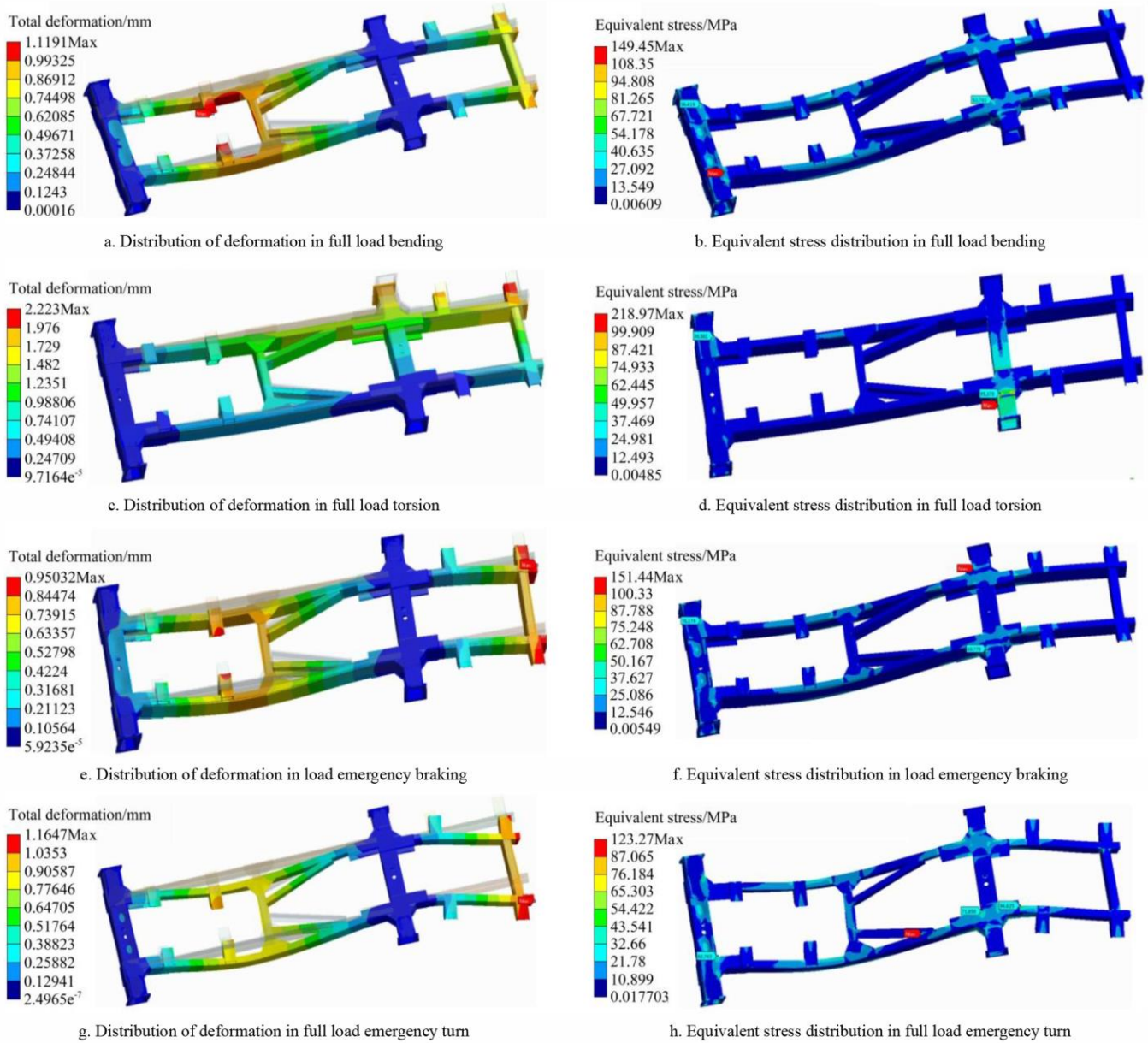


Figure 7 Stress and strain cloud diagram of sprayer frame in typical working conditions



Figure 12 Performance experiment of sprayer chassis