

USDA-ARS Pattern Testing Clinic

APHIS Grasshopper Study

Encanita, NM

4 June 2020

PV35

Material: Carboryl/Water

Number of Nozzles: 4

Nozzle Pres. (PSI): 40

Flow Rate at 40 PSI (GPM): 0.12

Nozzle Type: XR110-01

Spread Factors Equation

$SF = 1.6333 + 0.0009 \cdot D + 0.0000 \cdot D \cdot D$

Effective Swath = 33.0 ft

VMD = 192

VD(0.1) = 93

VD(0.9) = 297

GPA @ 40 (ft) = 0.294

Run ID: 1

Time: 19:00

Target Rate (GPA): 0.125

Target Swath (Ft): 40

Application Height (Ft): 10

Number of Passes: 1

Ground Speed (MPH): 10

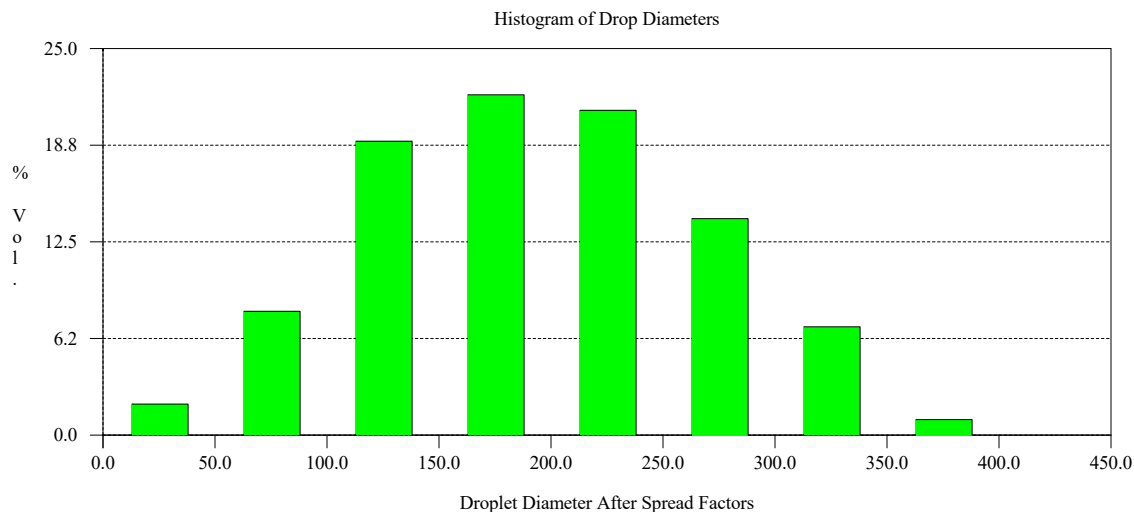
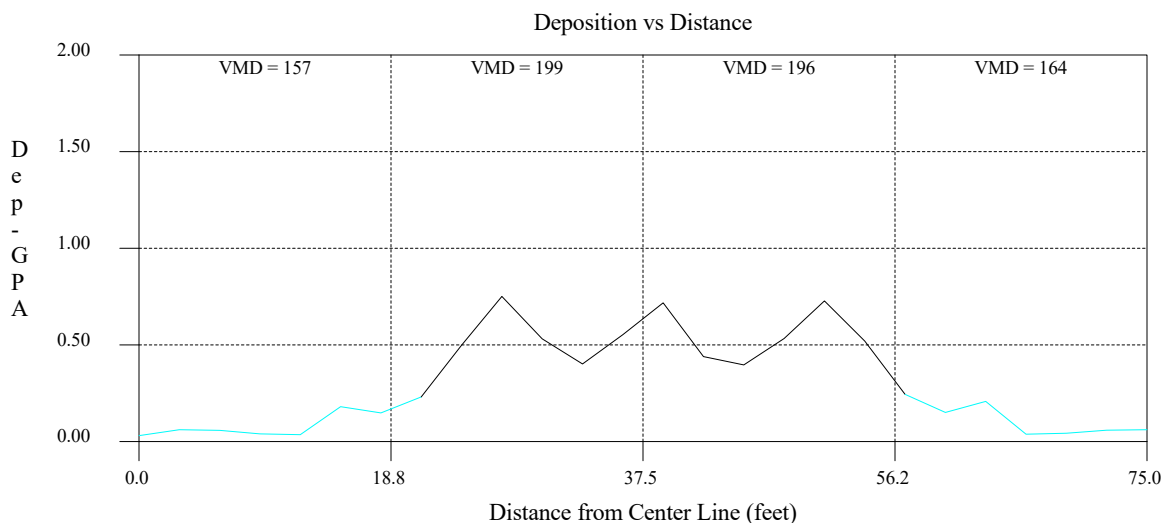
Wind Velocity (MPH): 10

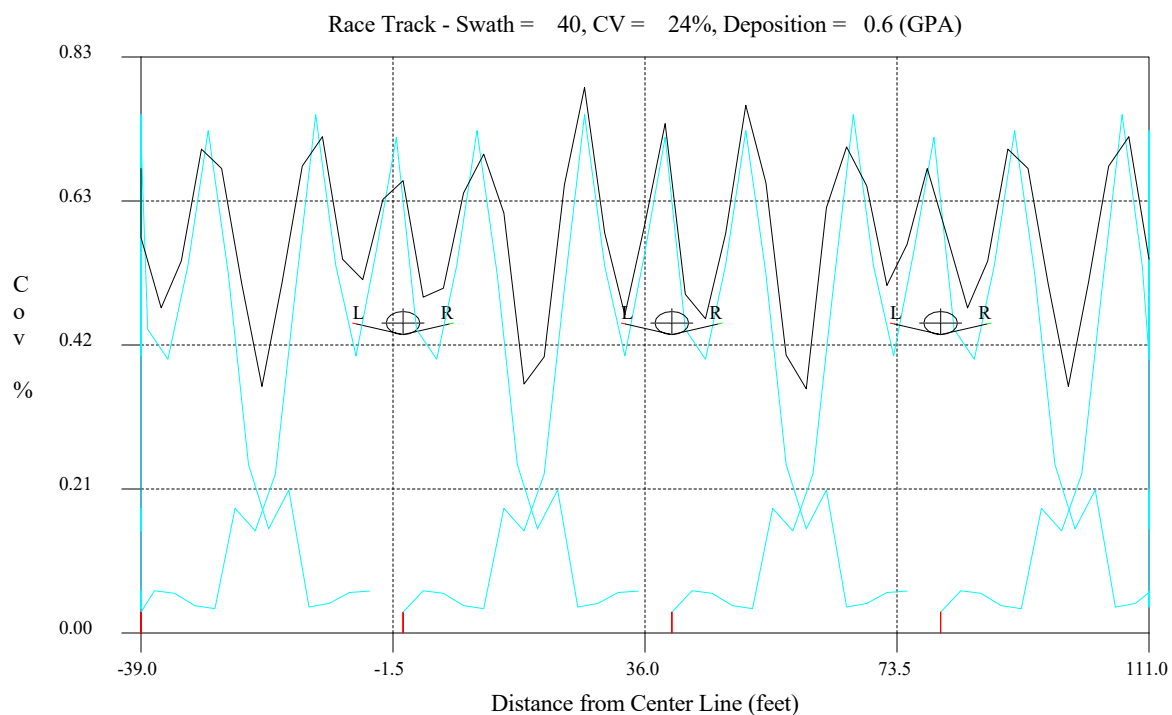
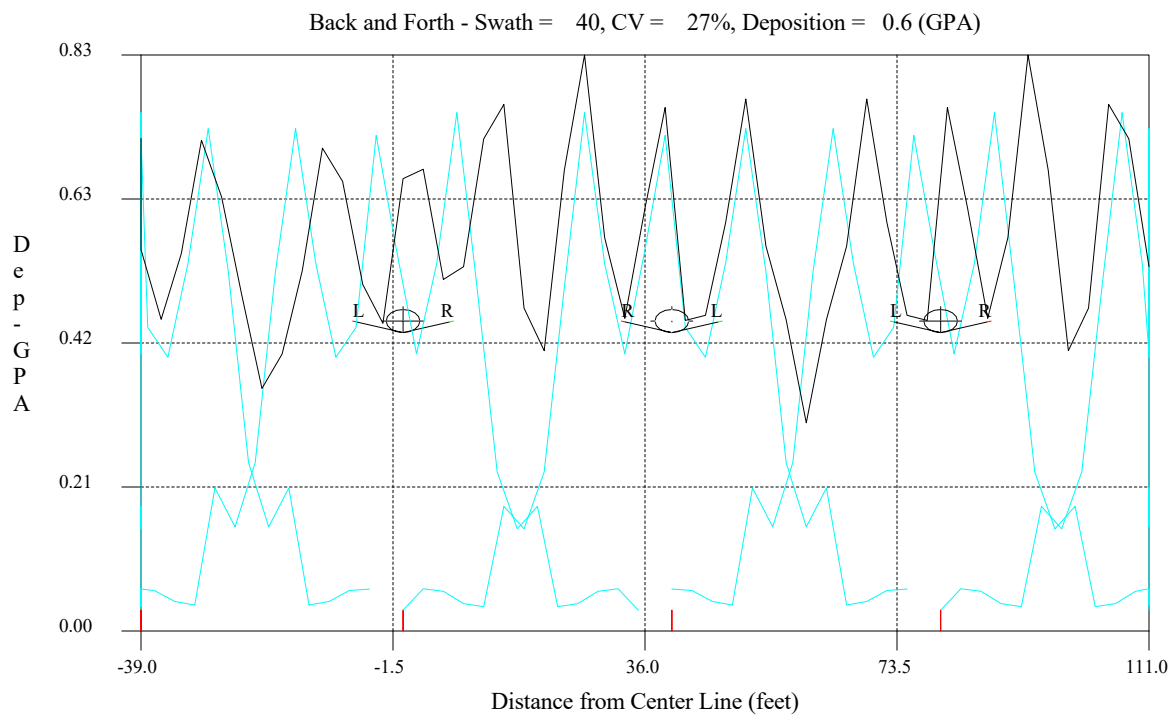
Wind Direction(deg.): 315

Cross Wind (MPH): 0

Temperature (F): 91

Humidity (%): 10





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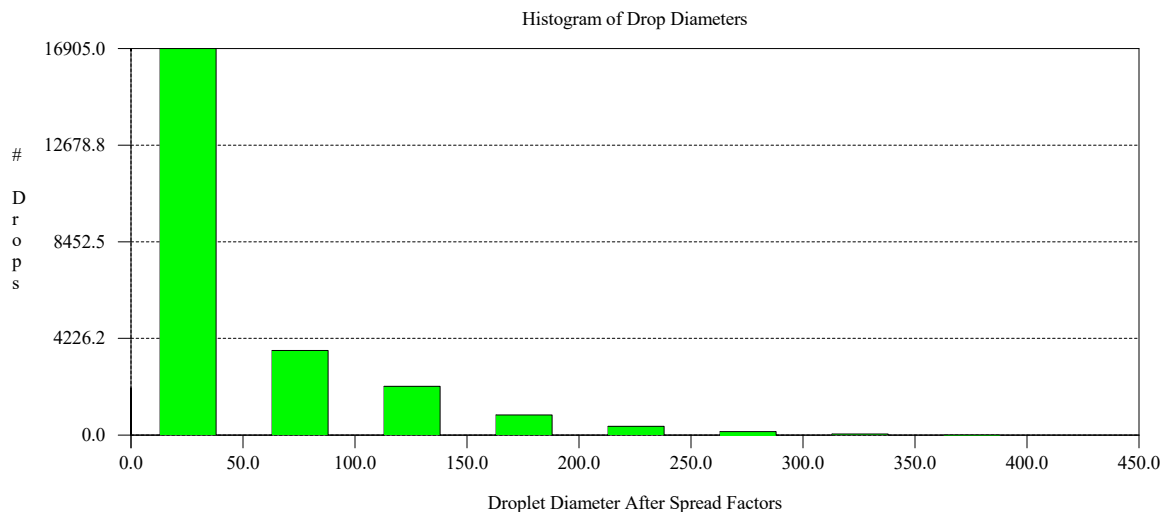
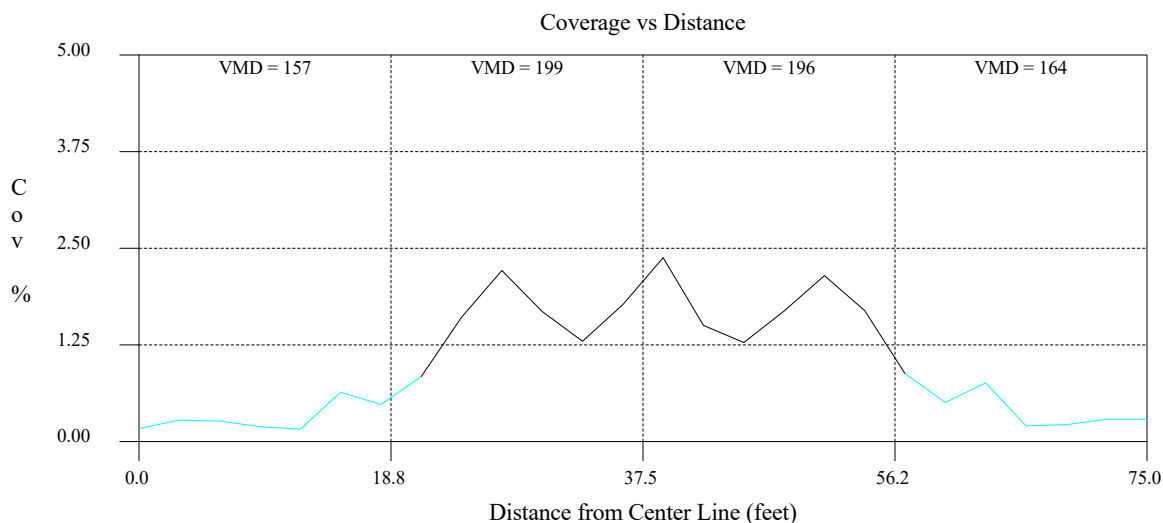
Wind Velocity (MPH): 10

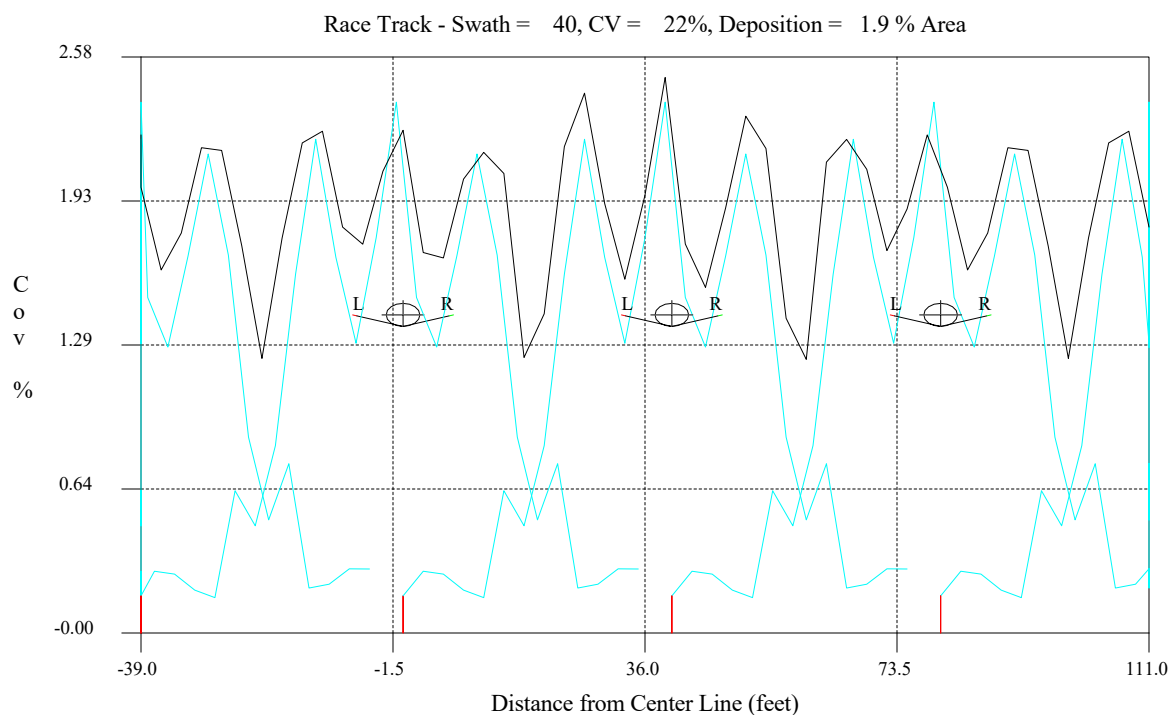
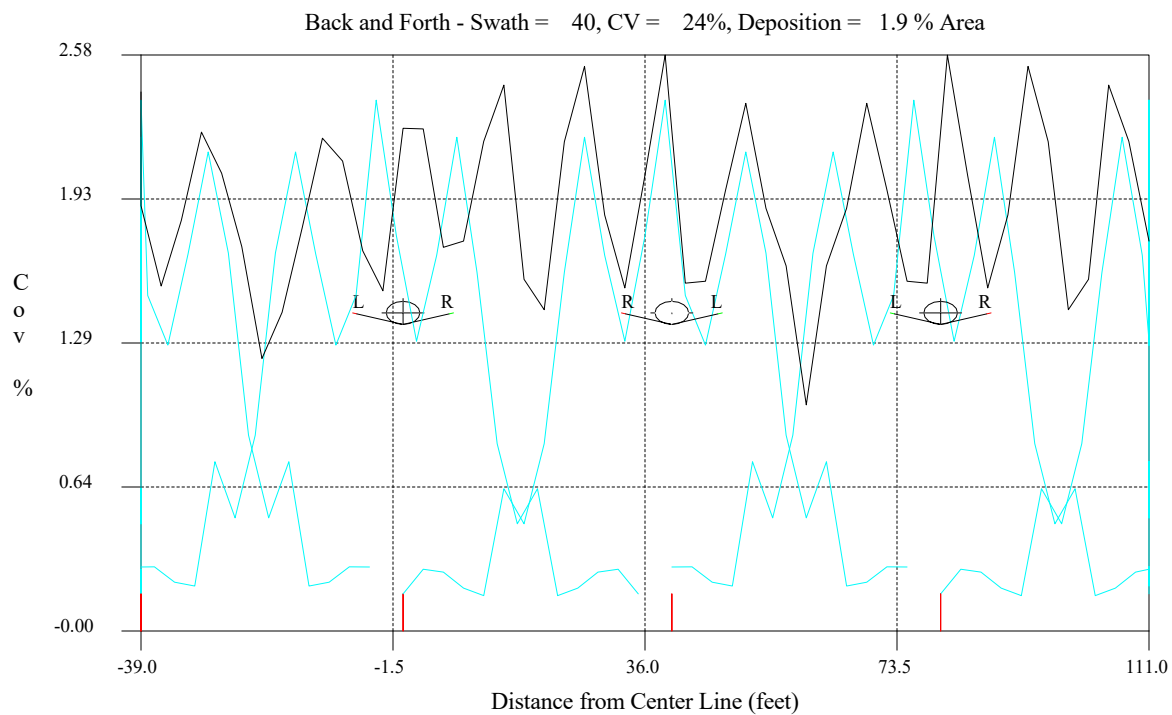
Wind Direction(deg.): 315

Cross Wind (MPH): 0

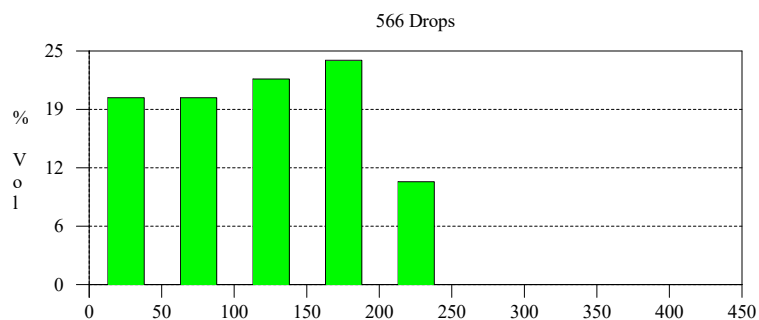
Temperature (F): 91

Humidity (%): 10

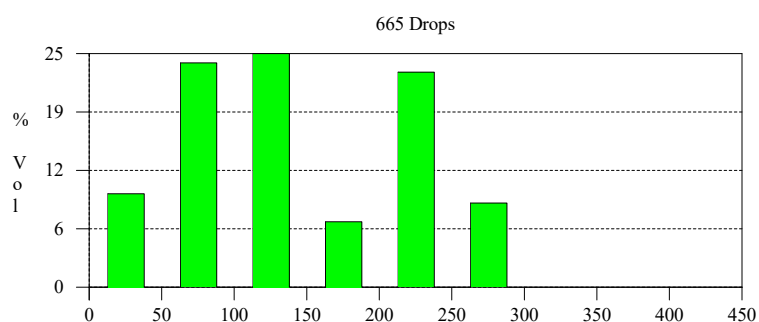




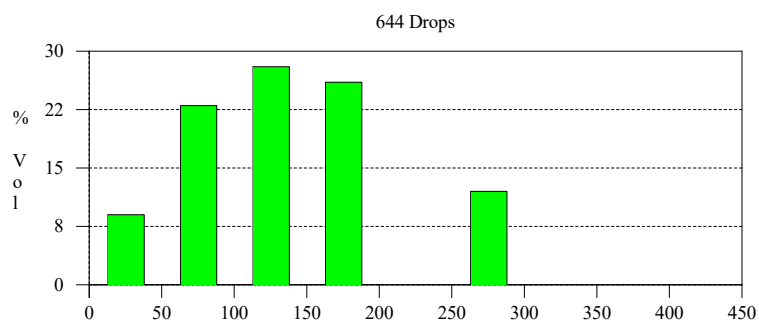
0.0 with 0.030 GPA & VMD = 109



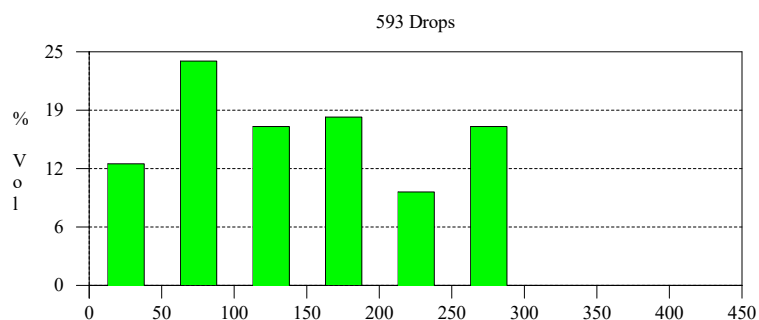
3.0 with 0.061 GPA & VMD = 130



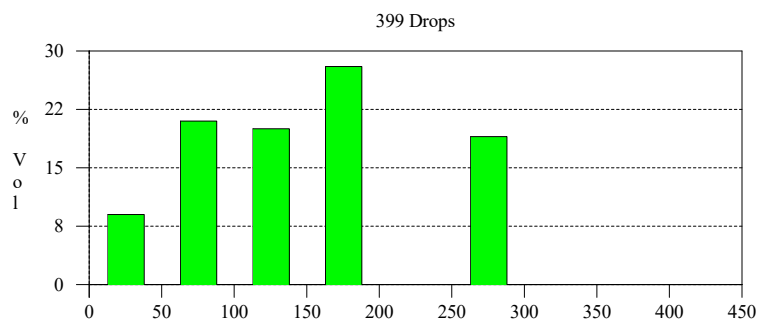
6.0 with 0.057 GPA & VMD = 130



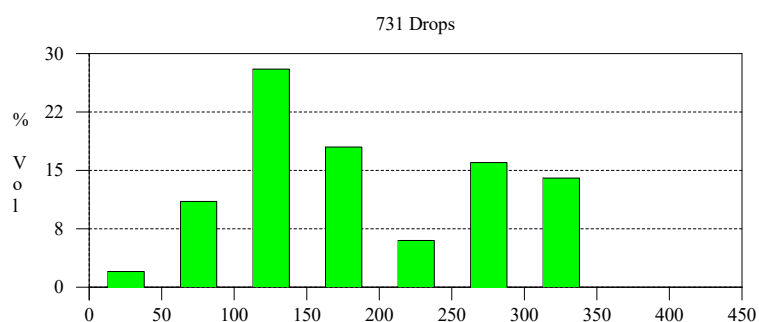
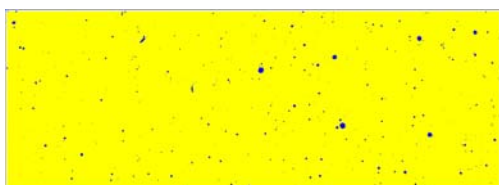
9.0 with 0.039 GPA & VMD = 123



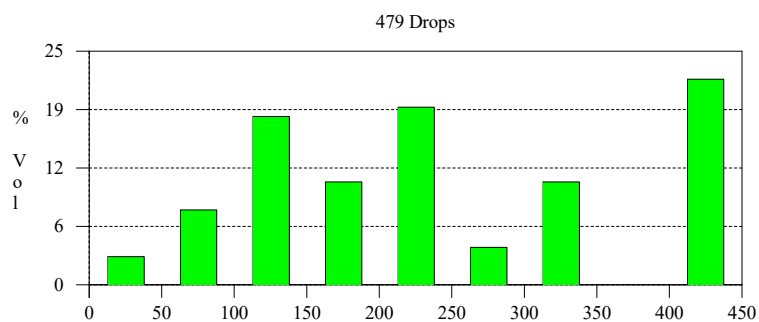
12.0 with 0.035 GPA & VMD = 147



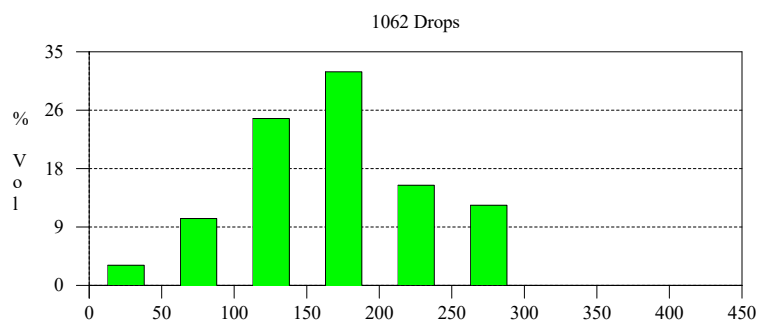
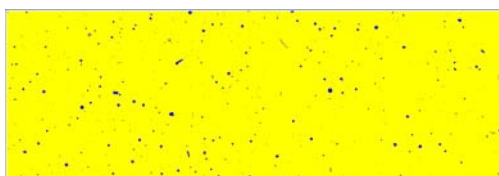
15.0 with 0.180 GPA & VMD = 163



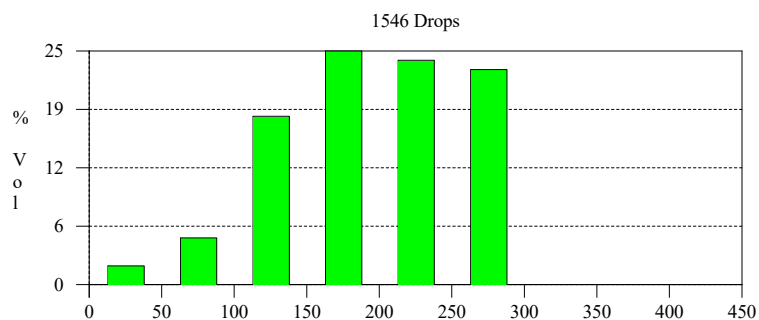
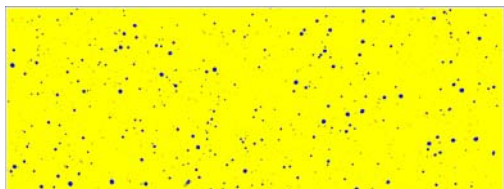
18.0 with 0.148 GPA & VMD = 236



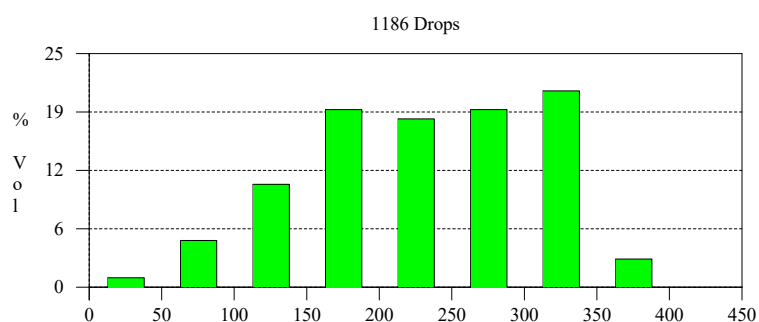
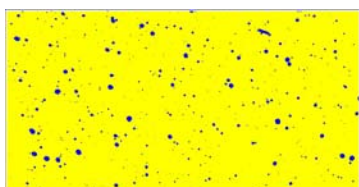
21.0 with 0.230 GPA & VMD = 166



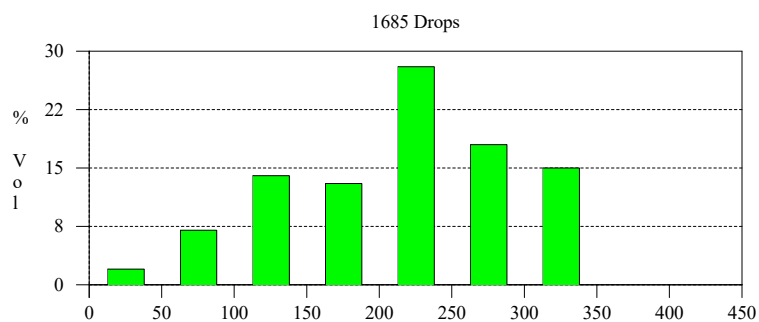
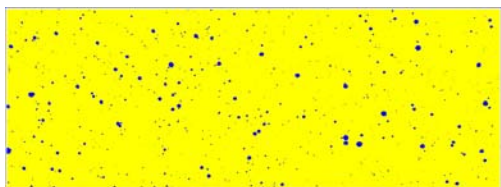
24.0 with 0.498 GPA & VMD = 195



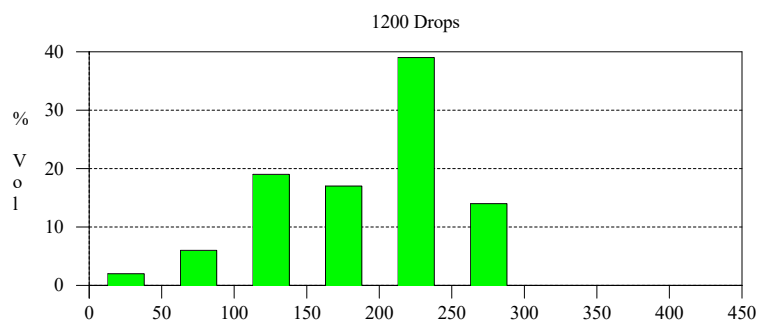
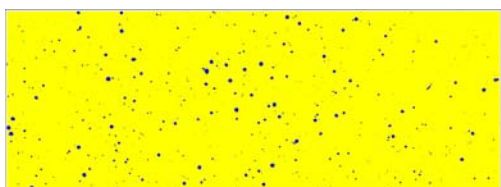
27.0 with 0.750 GPA & VMD = 237



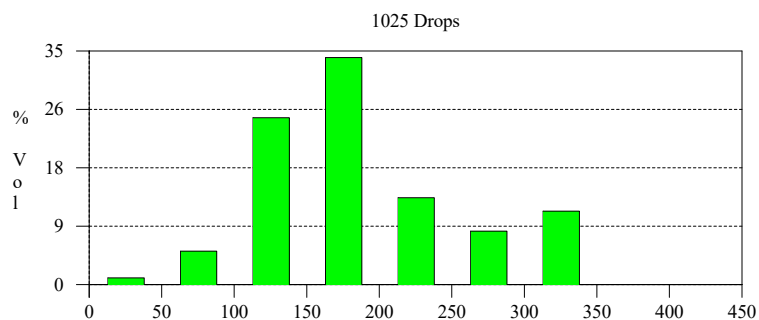
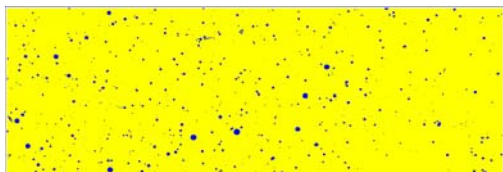
30.0 with 0.531 GPA & VMD = 220



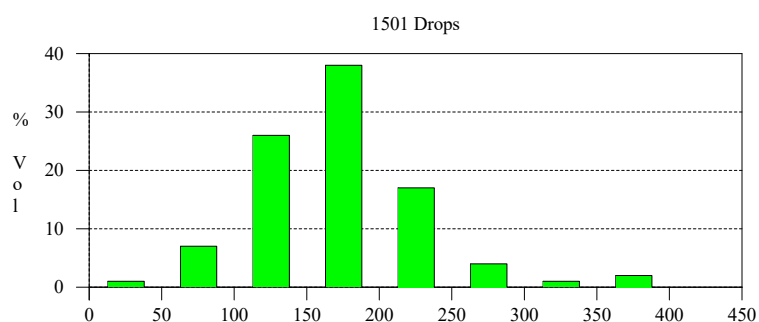
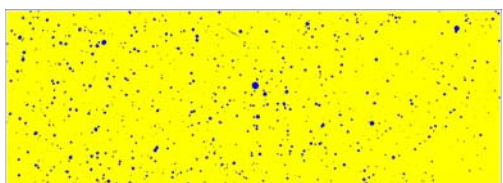
33.0 with 0.401 GPA & VMD = 206



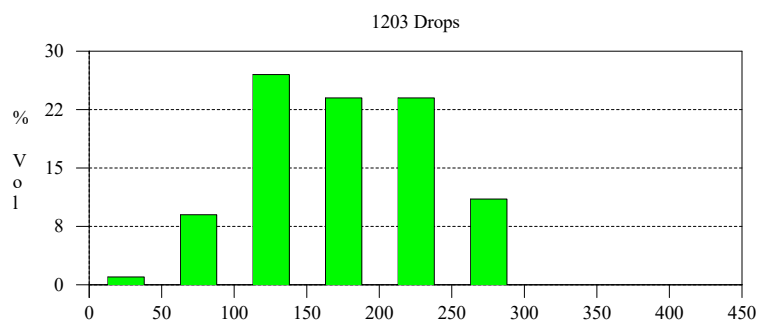
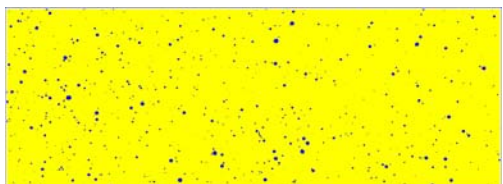
36.0 with 0.552 GPA & VMD = 174



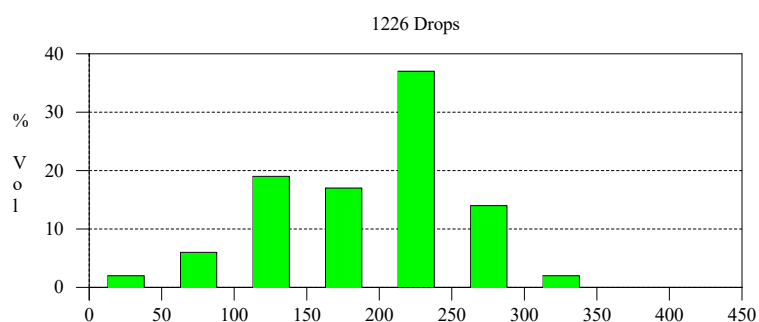
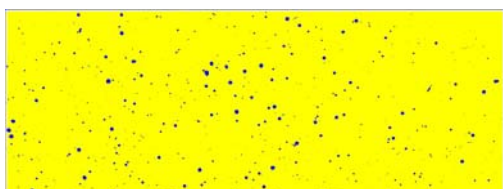
39.0 with 0.718 GPA & VMD = 165



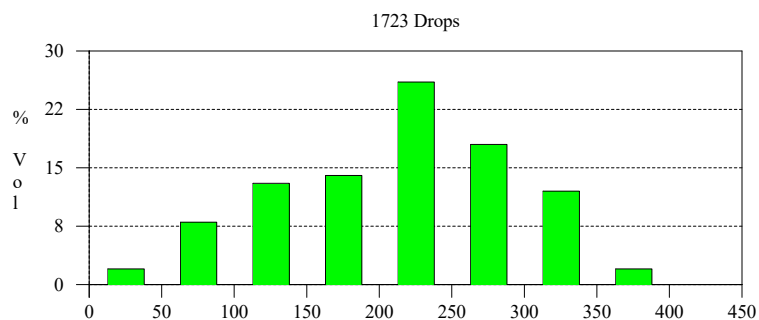
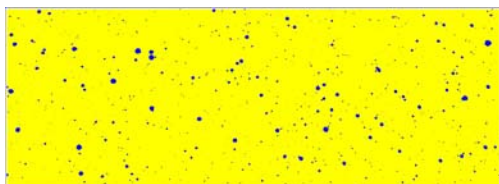
42.0 with 0.440 GPA & VMD = 173



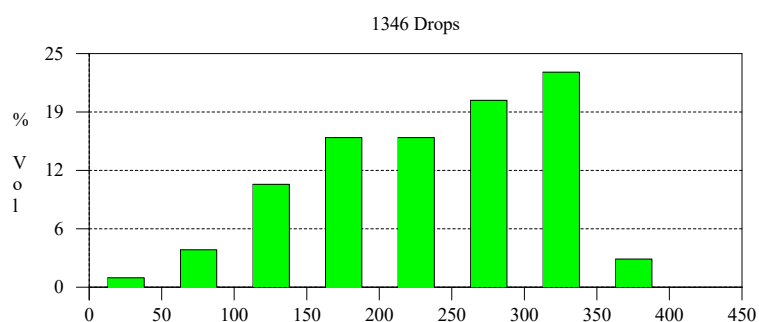
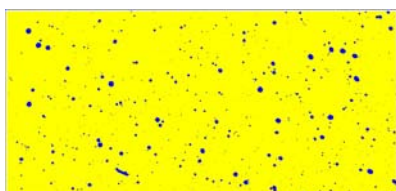
45.0 with 0.396 GPA & VMD = 206



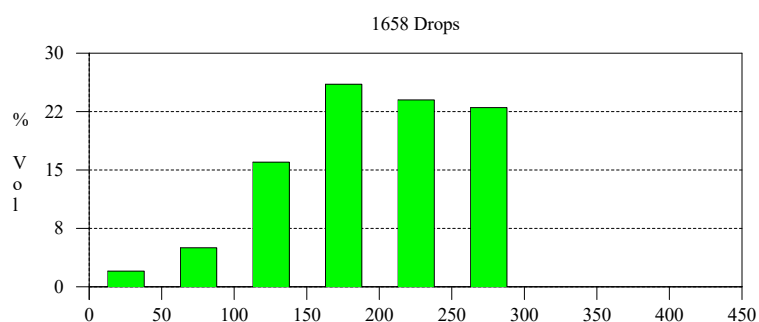
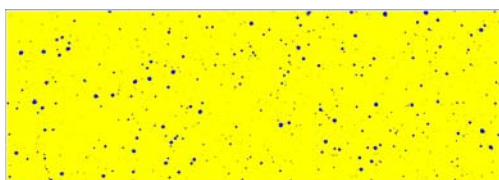
48.0 with 0.533 GPA & VMD = 219



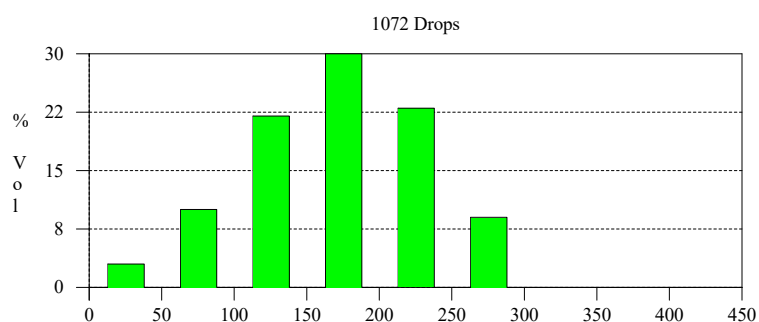
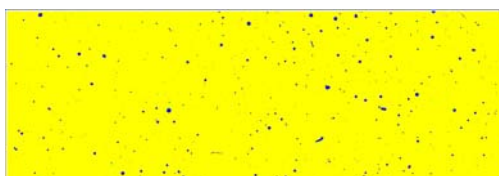
51.0 with 0.727 GPA & VMD = 244



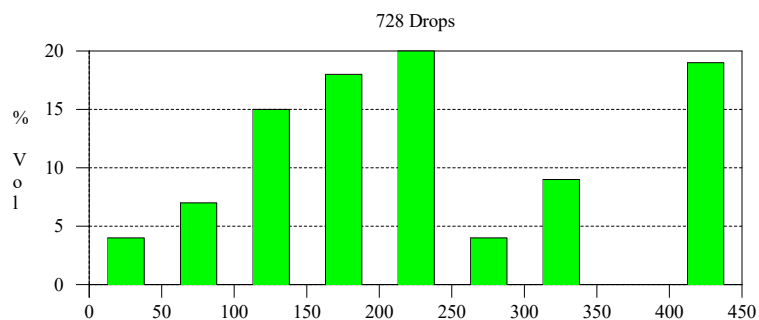
54.0 with 0.520 GPA & VMD = 192



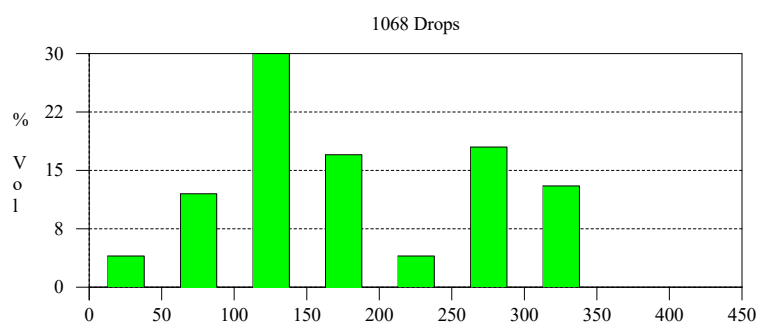
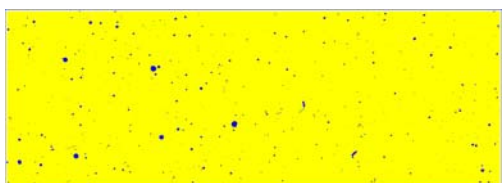
57.0 with 0.244 GPA & VMD = 174



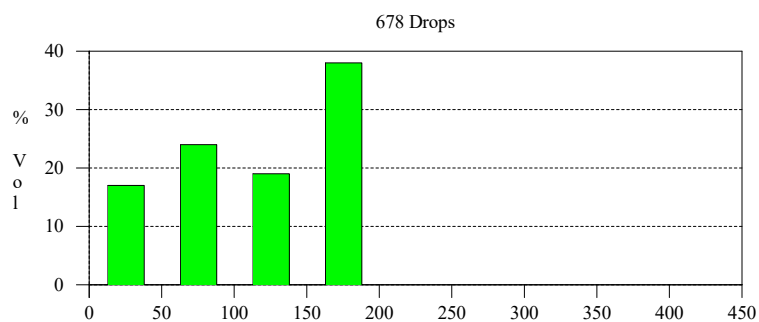
60.0 with 0.151 GPA & VMD = 238



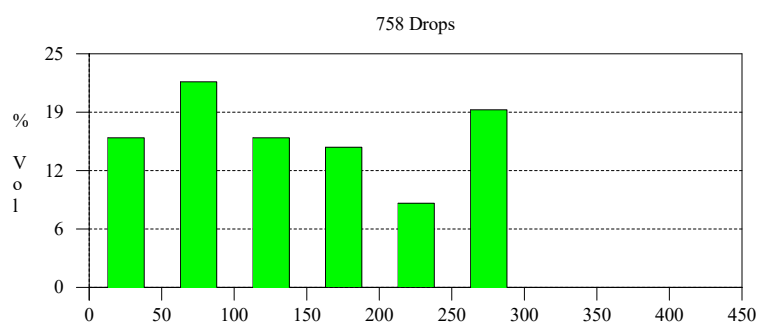
63.0 with 0.207 GPA & VMD = 160



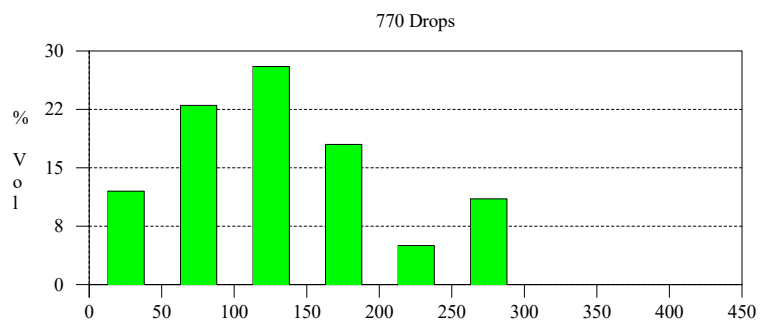
66.0 with 0.038 GPA & VMD = 137



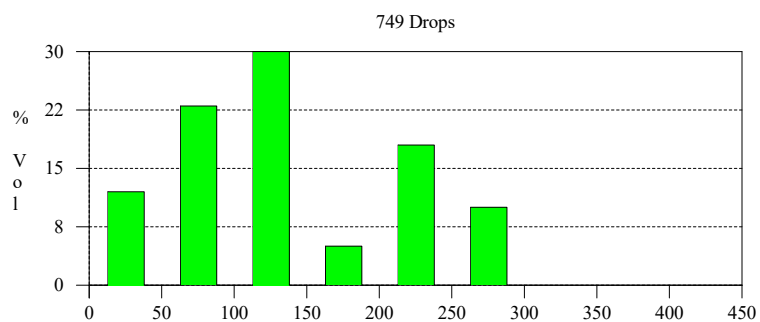
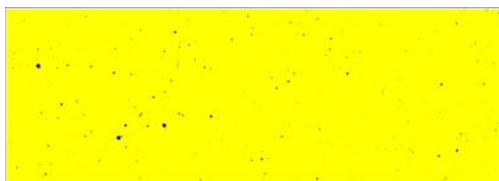
69.0 with 0.043 GPA & VMD = 125



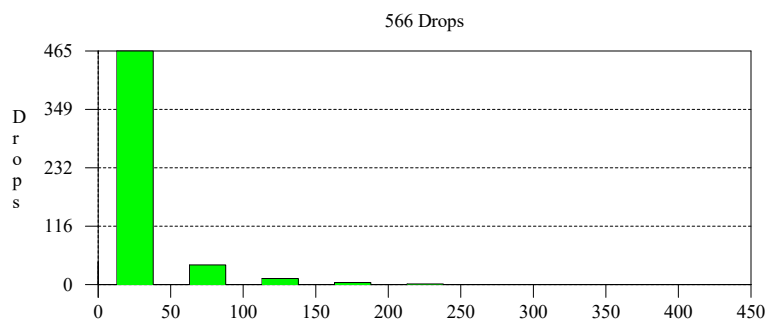
72.0 with 0.058 GPA & VMD = 118



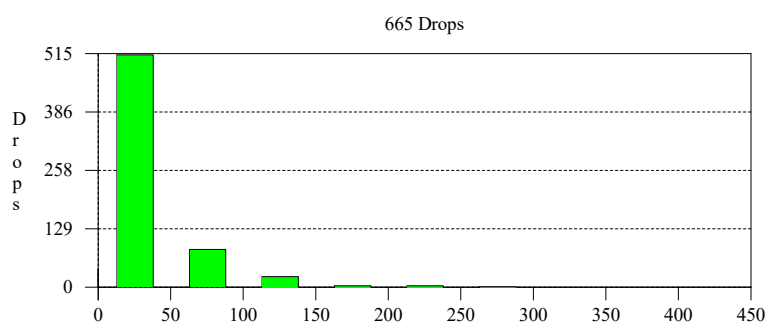
75.0 with 0.061 GPA & VMD = 123



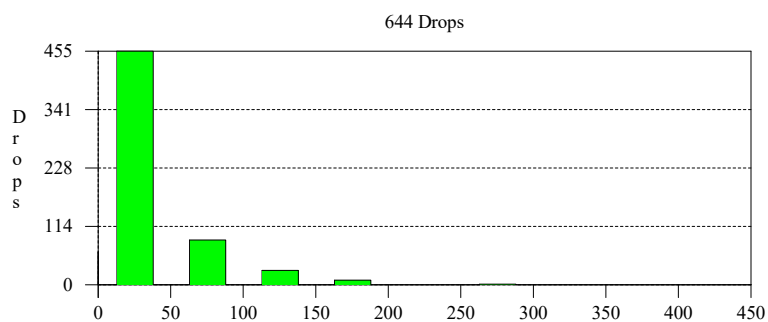
0.0 with 0.17 % area & VMD = 109



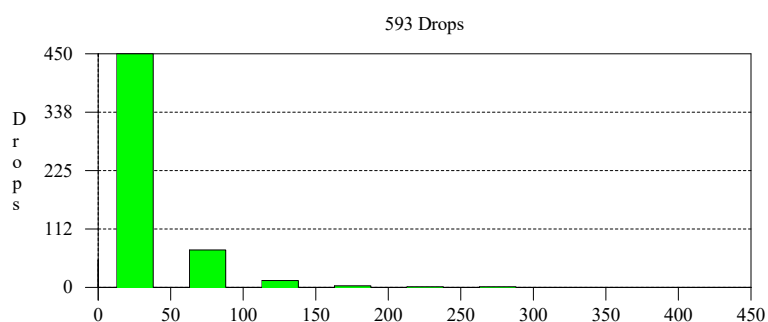
3.0 with 0.28 % area & VMD = 130



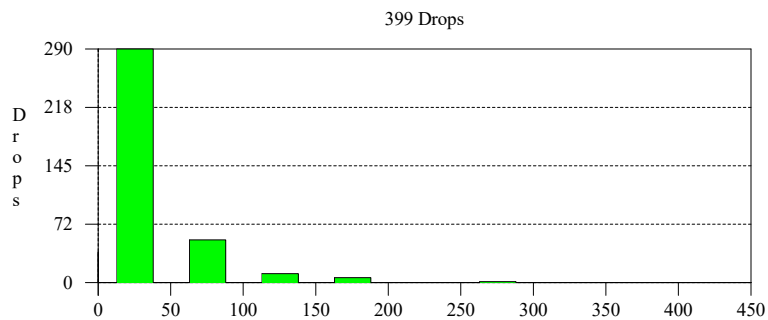
6.0 with 0.26 % area & VMD = 130



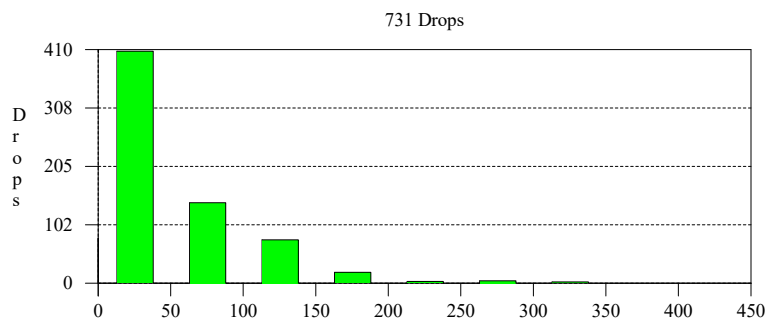
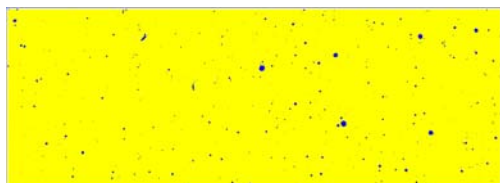
9.0 with 0.19 % area & VMD = 123



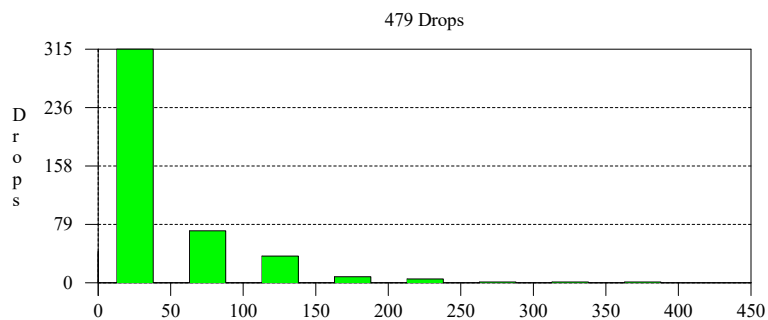
12.0 with 0.16 % area & VMD = 147



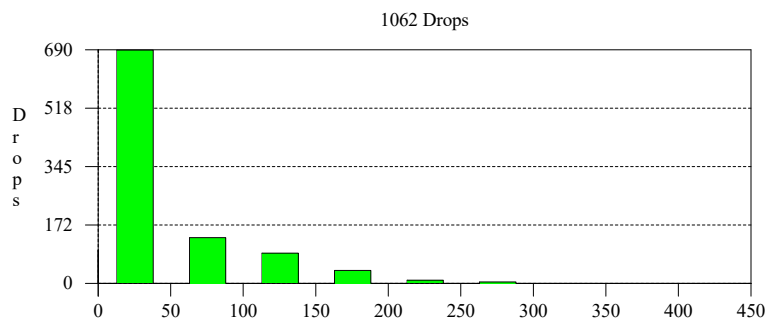
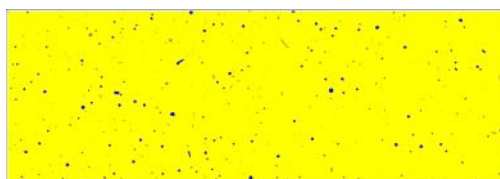
15.0 with 0.64 % area & VMD = 163



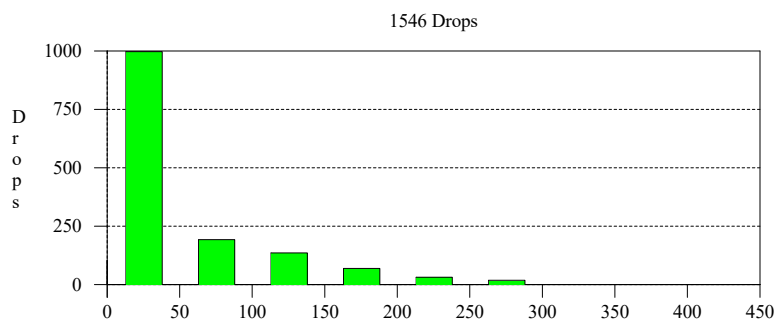
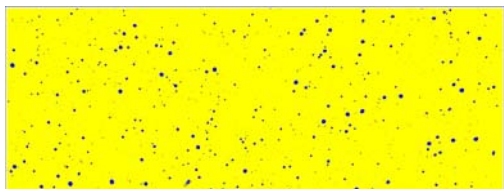
18.0 with 0.48 % area & VMD = 236



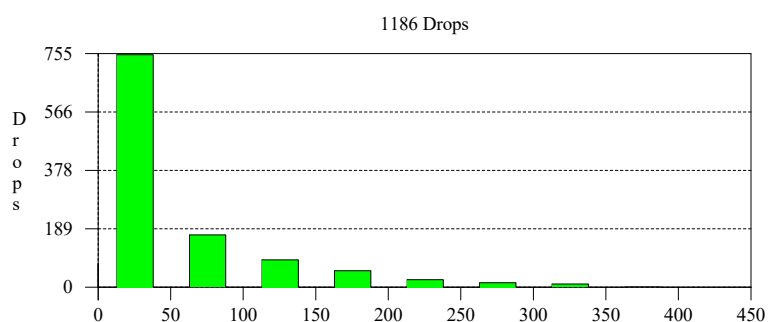
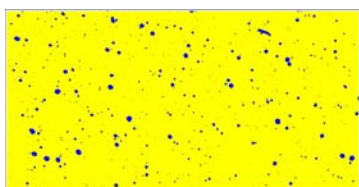
21.0 with 0.84 % area & VMD = 166



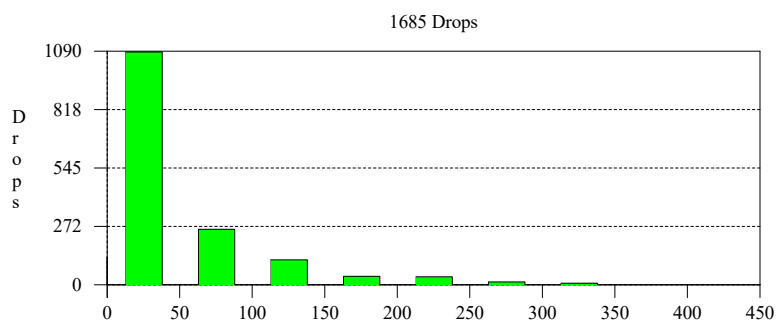
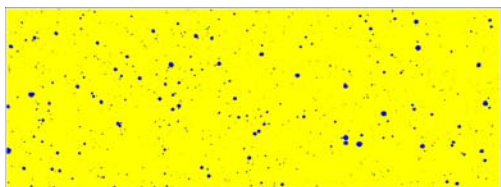
24.0 with 1.61 % area & VMD = 195



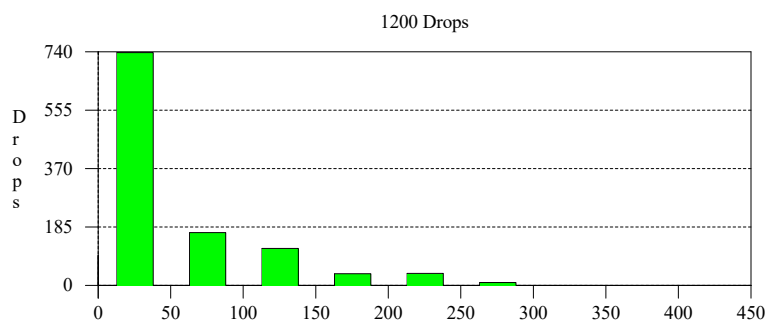
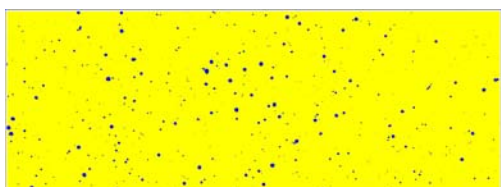
27.0 with 2.21 % area & VMD = 237



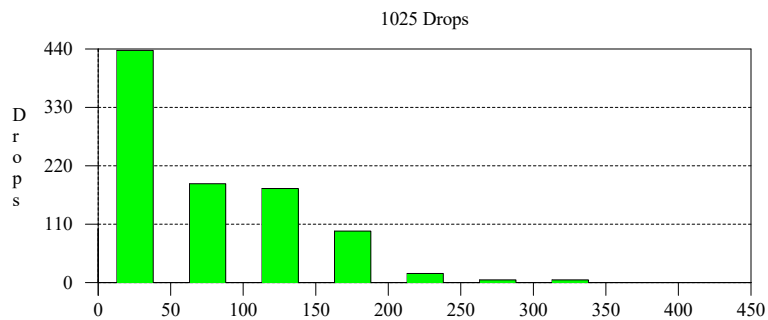
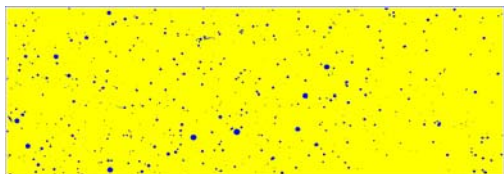
30.0 with 1.68 % area & VMD = 220



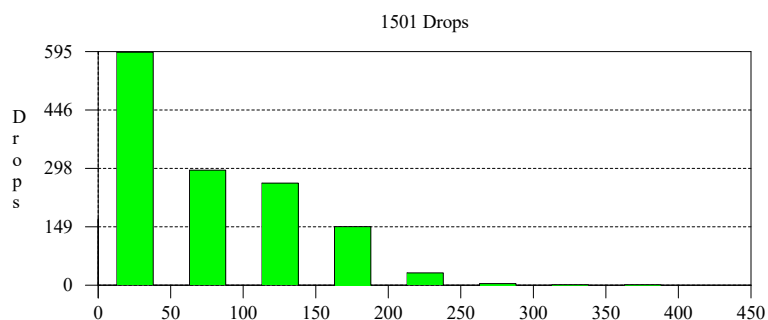
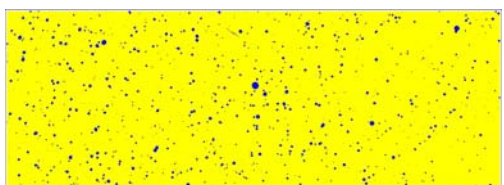
33.0 with 1.30 % area & VMD = 206



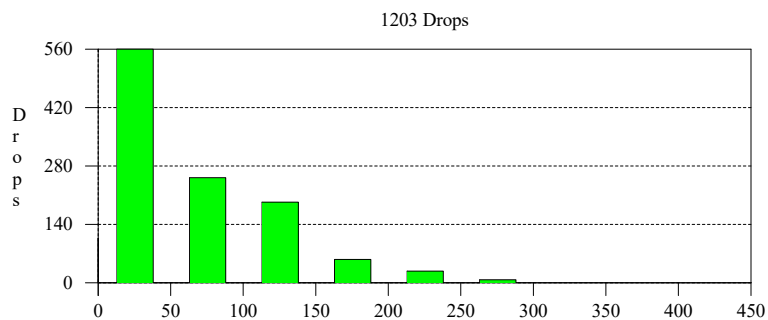
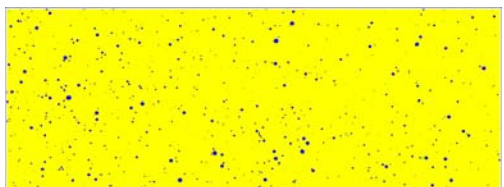
36.0 with 1.77 % area & VMD = 174



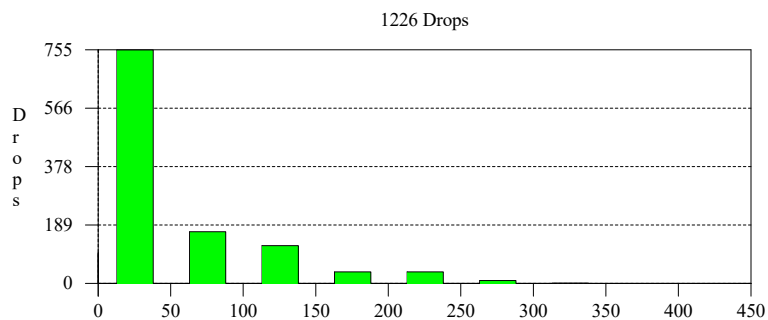
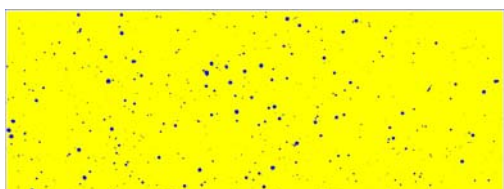
39.0 with 2.38 % area & VMD = 165



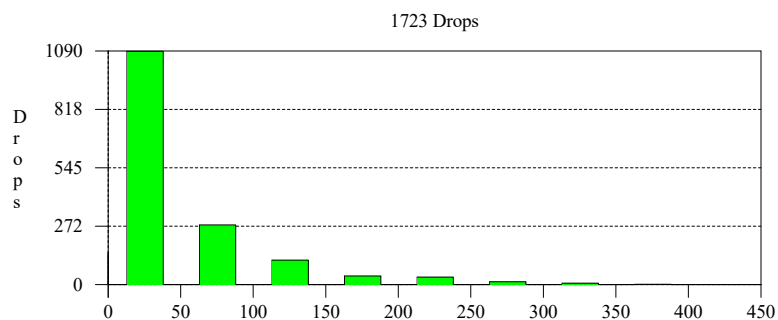
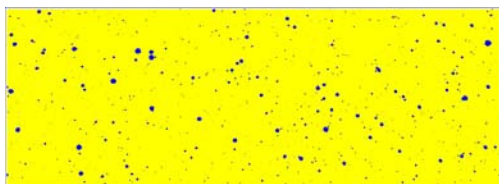
42.0 with 1.50 % area & VMD = 173



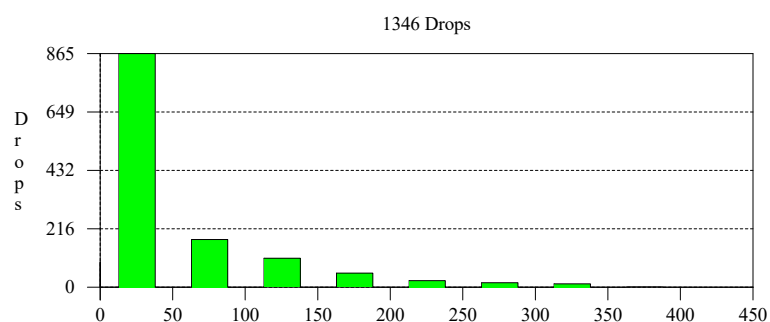
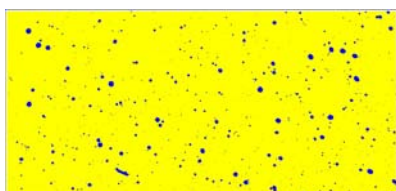
45.0 with 1.28 % area & VMD = 206



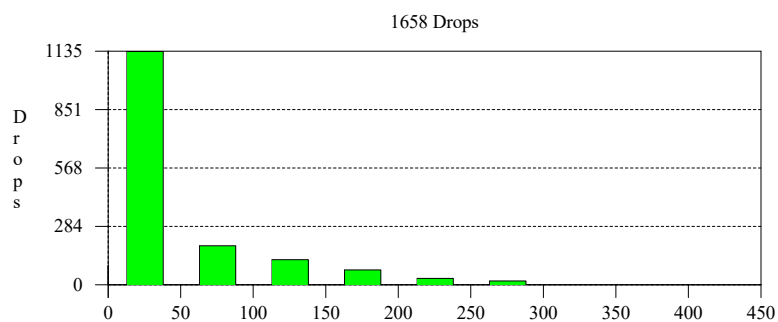
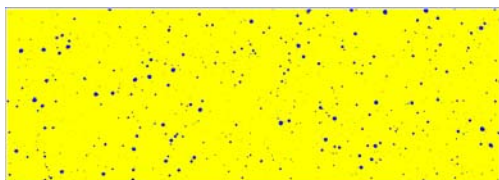
48.0 with 1.69 % area & VMD = 219



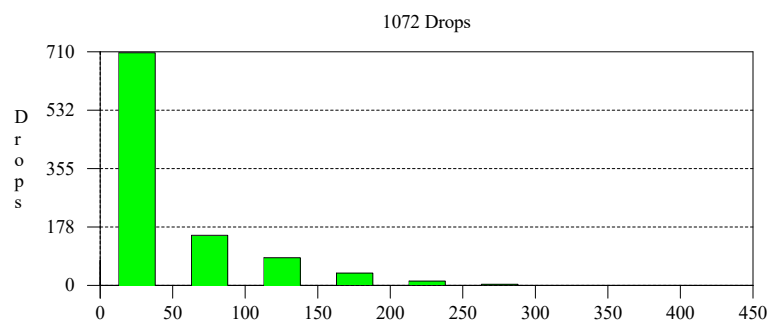
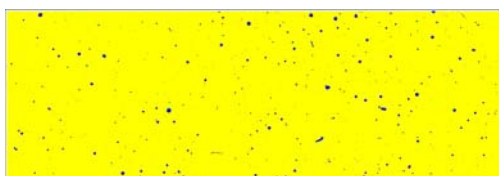
51.0 with 2.14 % area & VMD = 244



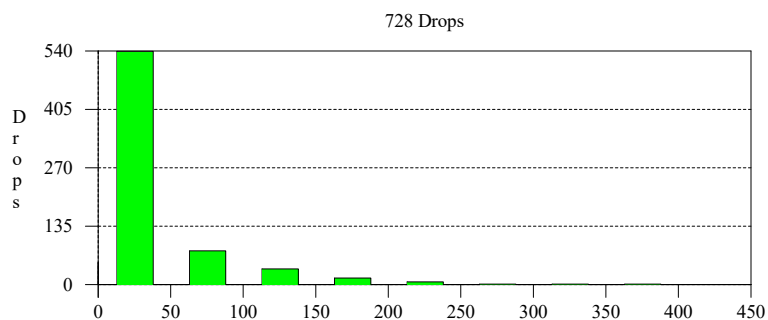
54.0 with 1.69 % area & VMD = 192



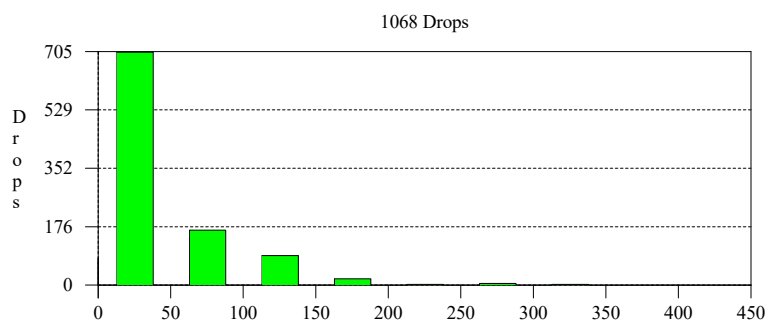
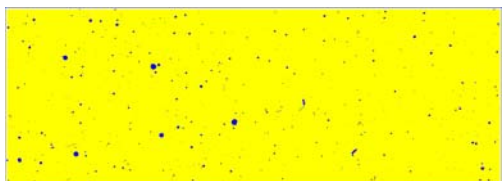
57.0 with 0.88 % area & VMD = 174



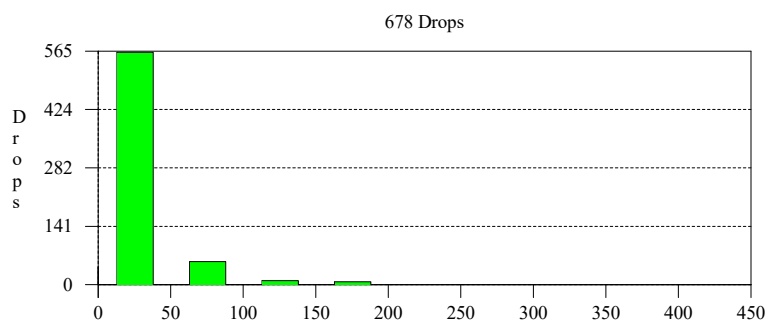
60.0 with 0.51 % area & VMD = 238



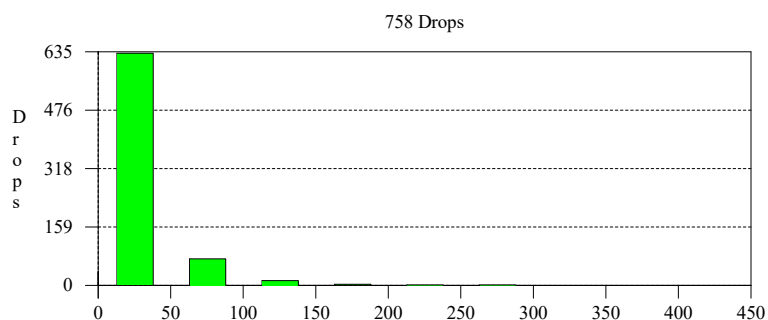
63.0 with 0.76 % area & VMD = 160



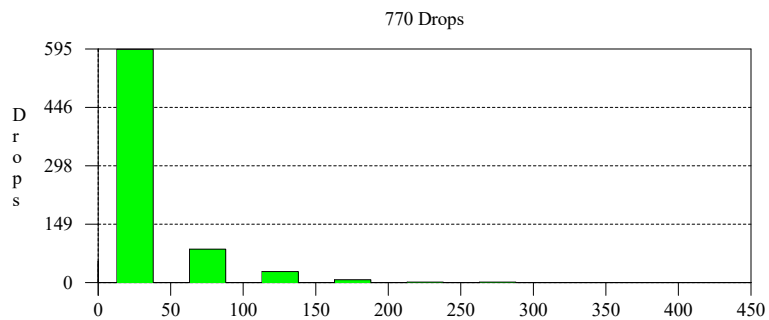
66.0 with 0.20 % area & VMD = 137



69.0 with 0.22 % area & VMD = 125



72.0 with 0.29 % area & VMD = 118



75.0 with 0.29 % area & VMD = 123

