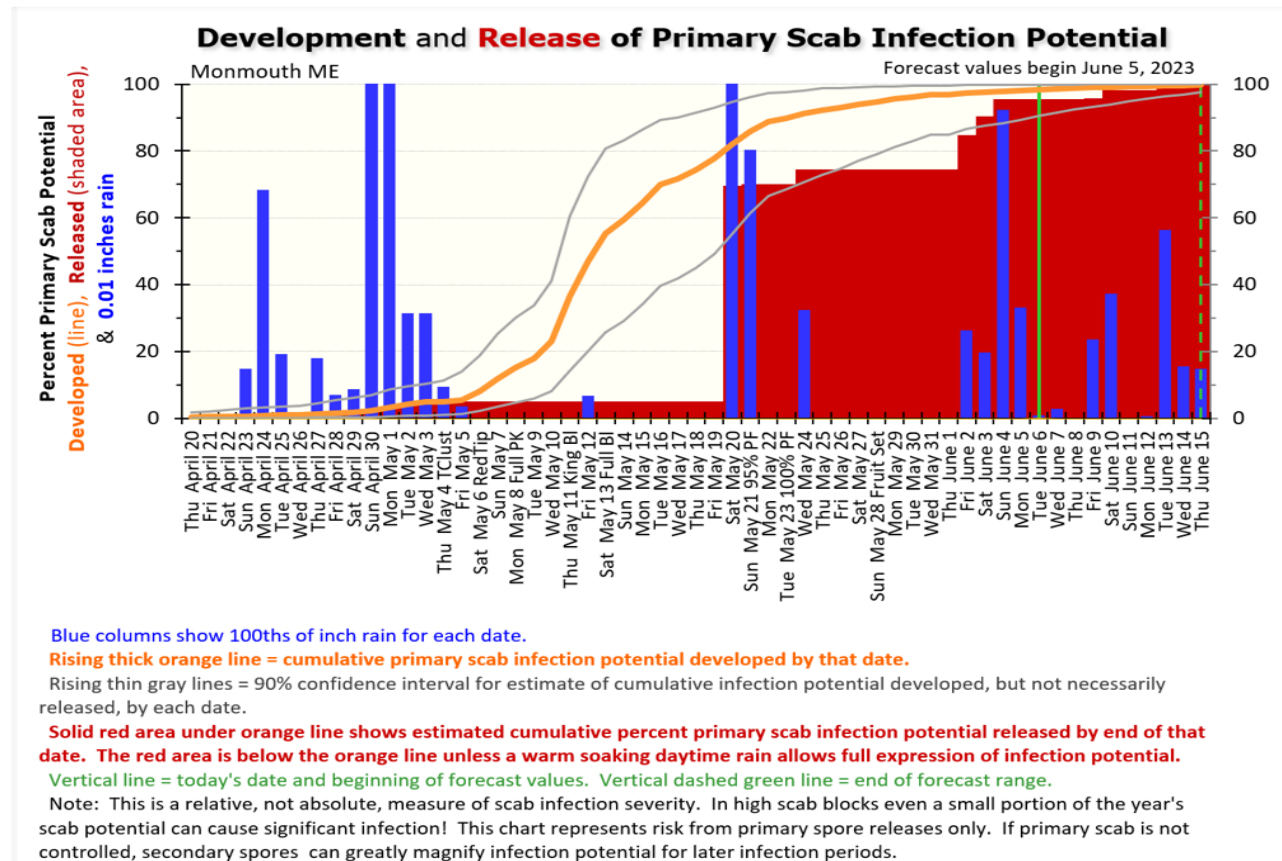


Maine State Report: Northeast Tree Fruit IPM Working Group Lake George NY October 24, 2023

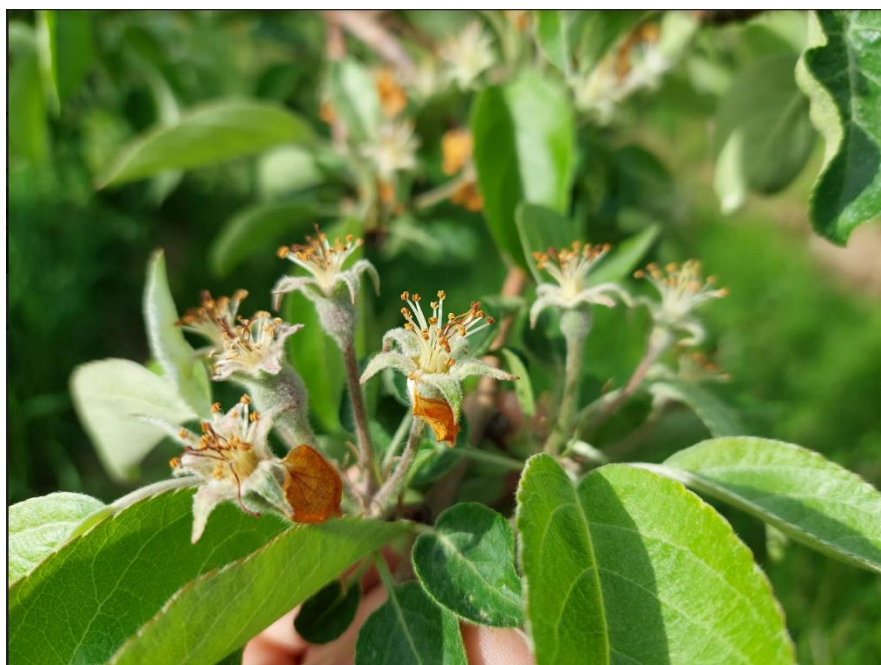
Glen Koehler, UMaine Extension

Notable events in 2023

Apple scab primary infection potential was very late due to dry weather in May



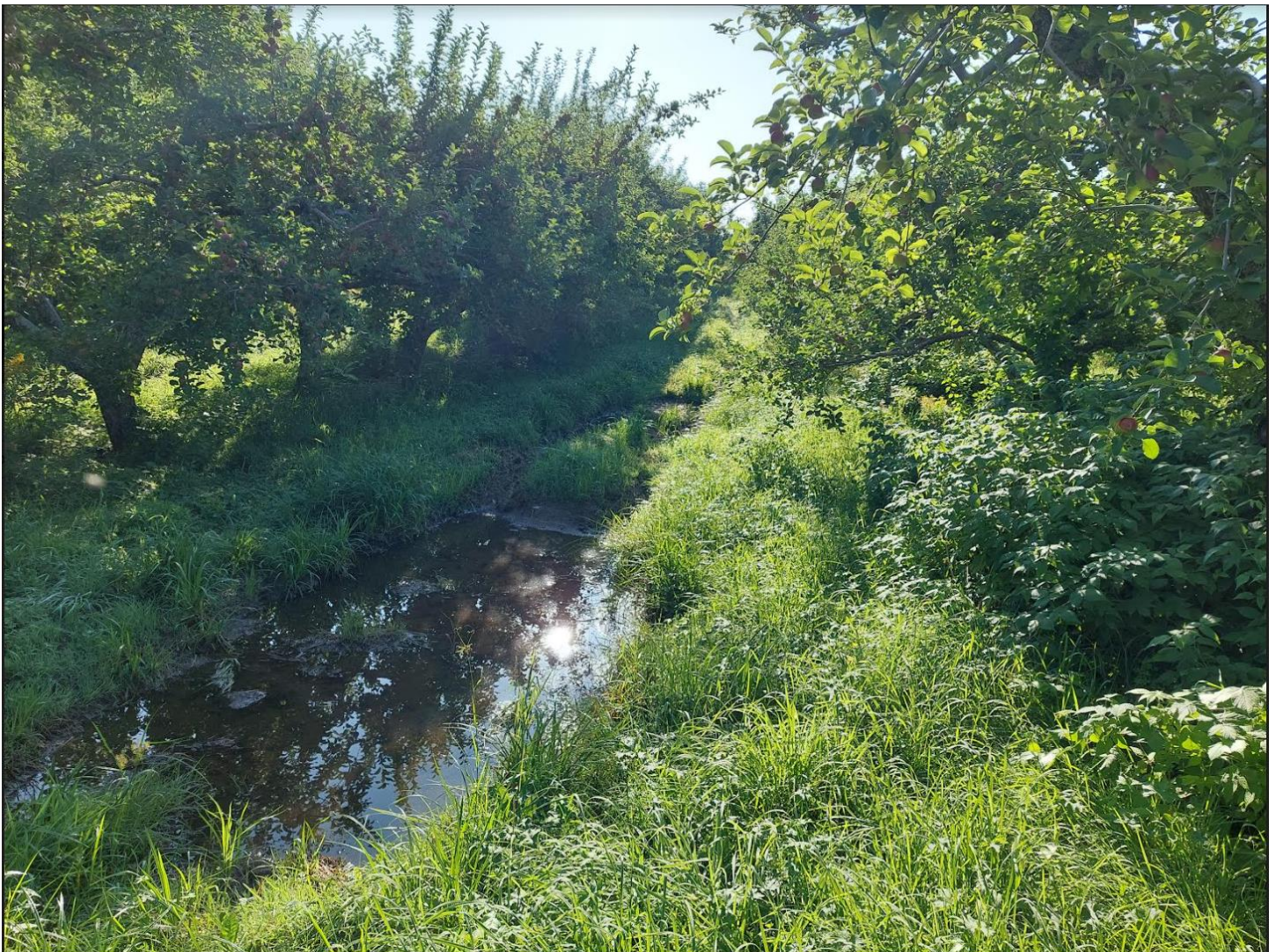
e



Poor thinning weather,
clarification of fruit diameter
measurements

June – 21 days with rain. 6.5 inches, 177% of normal
July – 18 days with rain, 7.1 inches, 201% of normal
August 12 days with rain, 6.7 inches, 171% of normal

Many orchard wet holes in late August in orchards that have never had wet holes this late before.



Tarnished plant bug?



No other hail dinks in this orchard, so what caused this?





Mystery spots started showing up in August. Usually no corking below the skin. Looks like bitter pit at first glance but it isn't bitter pit and it shows up on many different cultivars. Theory – lenticel infections due to non-stop humidity in June – July and much of August. Possibly induced by freeze damage.

Spots were showing by August 17



All kinds of strange pits, cracks, russetting, deformations attributed to freeze damage





Powdery mildew is very unusual in Maine, not expected in a historically wet year.





John Bunker's "Jurassic Park" orchard.

John is a nationally renowned apple explorer who has identified and "rediscovered" many lost cultivars.

There is a lot the commercial – scientific community can learn from the organic/cider wild apple gleaners community.

What do we mean by "apple tree"? 1980s thresholds may not apply to 2020s high density orchards.



If AM always landed like this, ID would be easy, But they don't. And none of the references mention the thoracic stripe which is a very good ID character.

Many new AM kept showing up on traps as late as September 21 in Monmouth ME, 12- 18 days after the degree day model said trap capture % had exceeded 98%.

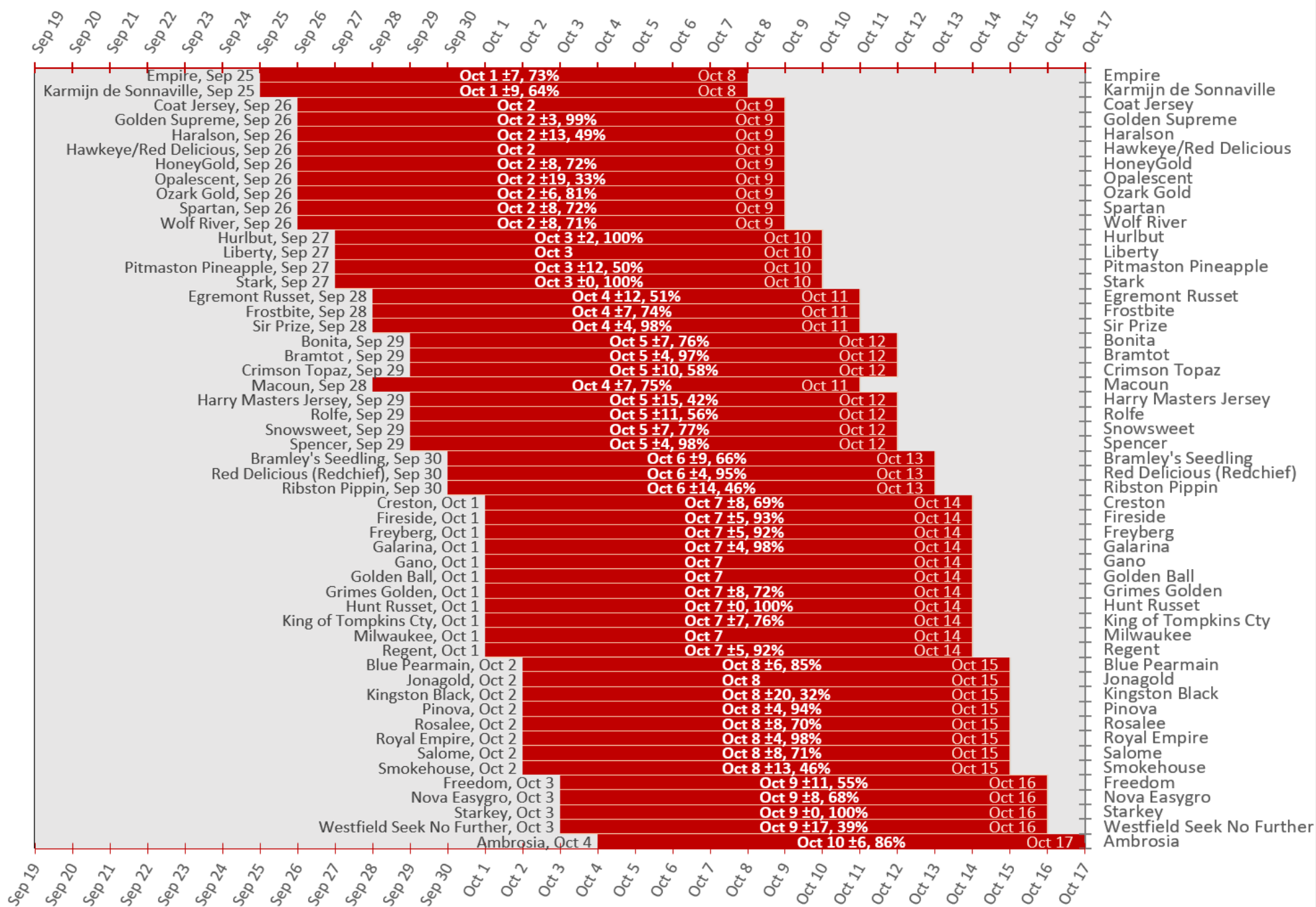


A non-codling moth “imposter” was found in codling moth traps at several trap locations.



Odd moths showing up in OBLR traps. Just OBLR with the scales knocked off? But the coloring is odd.

Database of maturity date for 963 cultivars, 455 cultivars with 2 or more estimates, average 2.43 sources per cultivar overall. Example page



New OBLR treatment timing guidance. Based on modeling work by Vince Foster 2020 and previous research on flight and oviposition timing

| Date | OBLR Moth Flight % (generation) | Oviposition % | Egg hatch % | Inches Rain | OBLR insecticide Group 1 Altacor, Exirel, Verdepryn; Delegate, Entrust; Besiege; Minecto Pro; Voliam Flexi. <u>1.5 in. rain or 14 days</u> Depletion Date (hatch % at depletion) | OBLR Group 2 Intrepid; Lannate; Rimon. <u>1 in. rain or 14 days</u> Depletion Date (hatch % at depletion) | OLBR Group 3 Asana, Baythroid, Danitol, Mustang Maxx, Warrior; Endigo; Gladiator; Proclaim. <u>1 in. rain or 10 days</u> Depletion Date (hatch % at depletion) | OBLR Group 4 Bt, Bt+SpearLep; Grandevo; Imidan. <u>0.5 in. rain or 7 days</u> Depletion Date (hatch % at depletion) |
|--------------|------------------------------------|---------------|-------------|-------------|--|---|--|---|
| Sat, July 1 | 81% 1st | 34% | | 0 | July 10 28% 1st | July 4 | July 4 | July 2 |
| Sun, July 2 | 83% 1st | 41% | | 0.90 | July 15 81% 1st | July 14 74% 1st | July 12 56% 1st | July 9 20% 1st |
| Mon, July 3 | 87% 1st | 51% | | 0.07 | July 15 81% 1st | July 14 74% 1st | July 13 67% 1st | July 10 28% 1st |
| Tue, July 4 | 89% 1st | 59% | | 0.10 | July 15 81% 1st | July 15 81% 1st | July 14 74% 1st | July 10 28% 1st |
| Wed, July 5 | 92% 1st | 66% | | 0 | July 15 81% 1st | July 15 81% 1st | July 15 81% 1st | July 10 28% 1st |
| Thu, July 6 | 93% 1st | 73% | 1% 1st | 0 | July 15 81% 1st | July 15 81% 1st | July 15 81% 1st | July 10 28% 1st |
| Fri, July 7 | 95% 1st | 80% | 4% 1st | 0.03 | July 15 81% 1st | July 15 81% 1st | July 15 81% 1st | July 10 28% 1st |
| Sat, July 8 | 96% 1st | 85% | 10% 1st | 0 | July 15 81% 1st | July 15 81% 1st | July 15 81% 1st | July 10 28% 1st |
| Sun, July 9 | 97% 1st | 88% | 20% 1st | 0 | July 15 81% 1st | July 15 81% 1st | July 15 81% 1st | July 10 28% 1st |
| Mon, July 10 | 97% 1st | 92% | 28% 1st | 0.55 | July 16 87% 1st | July 15 81% 1st | July 15 81% 1st | July 15 81% 1st |
| Tue, July 11 | 98% 1st | 95% | 42% 1st | 0.08 | July 16 87% 1st | July 15 81% 1st | July 15 81% 1st | July 15 81% 1st |
| Wed, July 12 | 98% 1st | 97% | 56% 1st | 0.08 | July 16 87% 1st | July 16 87% 1st | July 16 87% 1st | July 15 81% 1st |
| Thu, July 13 | 98% 1st | 98% | 67% 1st | 0 | July 16 87% 1st | July 16 87% 1st | July 16 87% 1st | July 15 81% 1st |
| Fri, July 14 | 98% 1st | 99% | 74% 1st | 0.18 | July 16 87% 1st | July 16 87% 1st | July 16 87% 1st | July 15 81% 1st |
| Sat, July 15 | 98% 1st | 100% | 81% 1st | 0.80 | July 25 | July 17 92% 1st | July 17 92% 1st | July 16 87% 1st |
| Sun, July 16 | 99% 1st | | 87% 1st | 1.00 | July 27 | July 25 | July 25 | July 23 100% 1st |
| Mon, July 17 | 99% 1st | | 92% 1st | 0.04 | July 27 | July 25 | July 25 | July 24 100% 1st |
| Tue, July 18 | 99% 1st | | 95% 1st | 0 | July 27 | July 25 | July 25 | July 25 |
| Wed, July 19 | 99% 1st | | 97% 1st | 0 | July 27 | July 25 | July 25 | July 25 |
| Thu, July 20 | 99% 1st | | 98% 1st | 0 | July 27 | July 25 | July 25 | July 25 |
| Fri, July 21 | 99% 1st | | 98% 1st | 0.10 | July 27 | July 25 | July 25 | July 25 |
| Sat, July 22 | | | 99% 1st | 0.07 | July 29 | July 25 | July 25 | July 25 |
| Sun, July 23 | | | 100% 1st | 0 | July 29 | July 25 | July 25 | July 25 |
| Mon, July 24 | | | 100% 1st | 0.05 | July 29 | July 25 | July 25 | July 25 |