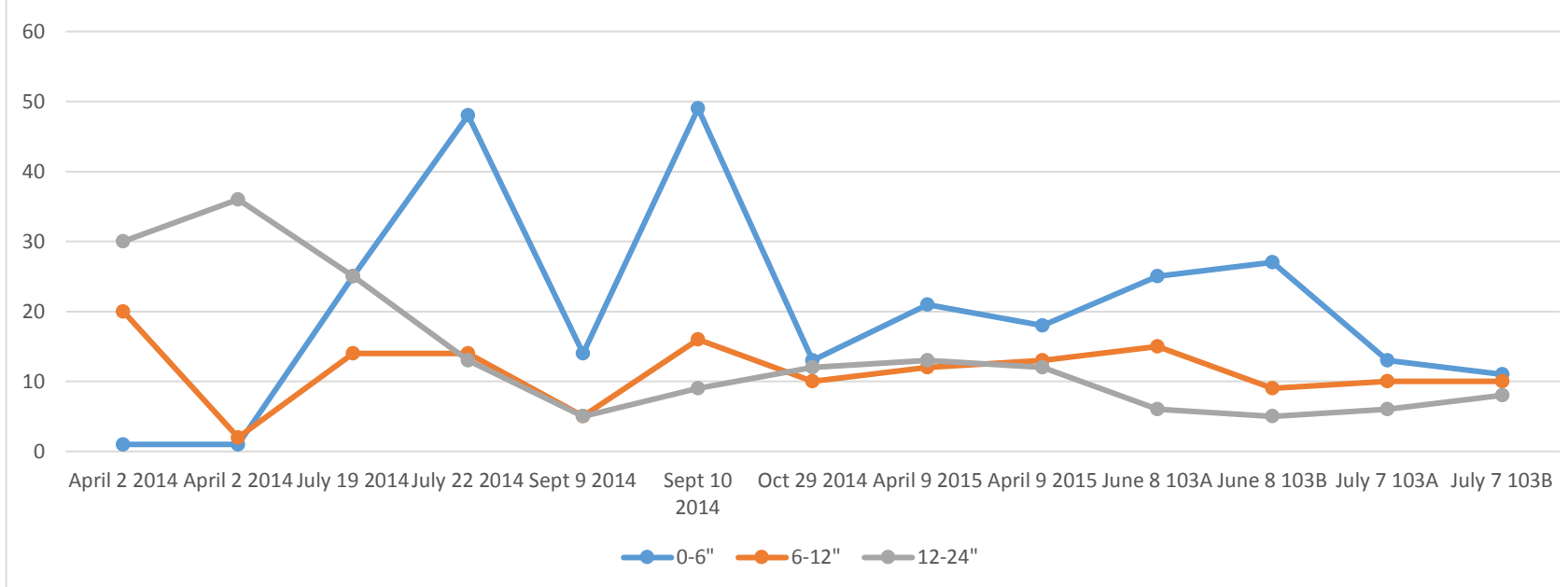


### H.S. Jansen Field 103 Soil Nitrate History July 10th, 2015



April 2, 2014 - first soil samples	Date:	0-6"	6-12"	12-24"
July 19, 2014 - pre manure application after 1st cut alfalfa before manure	April 2 2014	1	20	30
July 22, 2014 - post manure application after 1st cut.	April 2 2014	1	2	36
Sept 9, 2014 - pre manure application after 2nd cut alfalfa	July 19 2014	25	14	25
Sept 10, 2014 - post manure application after 2nd cut.	July 22 2014	48	14	13
Oct 29, 2014 - post 3rd cut soil test for going into winter.	Sept 9 2014	14	5	5
April 9 2015 - Spring soil test pre crop growth starting	Sept 10 2014	49	16	9
June 8 2015 - pre manure after 1st cut soil nitrate test	Oct 29 2014	13	10	12
July 7 2015 - pre manure after 2nd cut soil nitrate test	April 9 2015	21	12	13
	April 9 2015	18	13	12
	June 8 103A	25	15	6
	June 8 103B	27	9	5
	July 7 103A	13	10	6
	July 7 103B	11	10	8

The Soil Nitrate data collected so far shows an expected nitrate spike in the 0-6 inch soil profile after each manure application in 2014 and a corresponding reduction once the alfalfa cutting is harvested. With the managed irrigation program being implemented now we have not seen any sign of nitrate leaching below the 1 foot level. I would suggest we lost an opportunity after 1st cut to effectively utilize a substantial amount of manure nitrogen early in the season when the plants are the most actively growing and we have more time to adjust levels late in the season to go into winter with as low levels as possible.