2021 Terra Nova Trading / GLM Trading Crop Estimate.

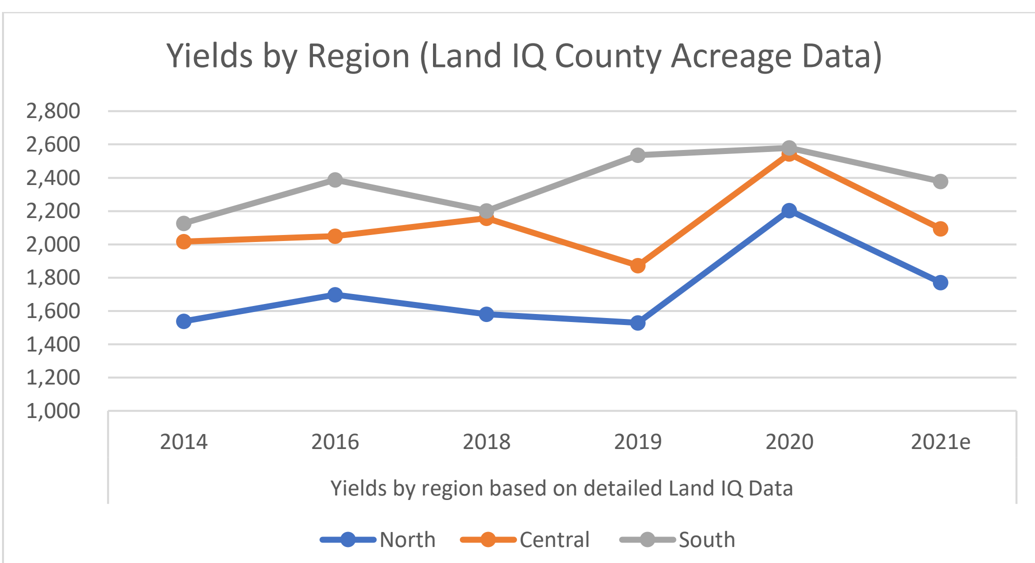
Dear Interested Parties,

It's time for the 2nd Pandemic Estimate, and once again the rigors of a double quarantine have prevented Liam from participating, leaving Stuart and JJ (The Sorcerer's Apprentice) to do the dirty work, and Michael to tinkle the keys.

With many of our conspirators, and all of us at TNT, vaccinated against Covid-19 (sobering to recall what the 19 signifies), we were able to get back to our usual itinerary, and thus our assessment takes in 356 different orchards, 2300 miles, and 7 days of hard labor, plus the kind assistance of our long-time collaborators.

We usually start with an autopsy of last season's estimate, and we were spot on that it was "Best Ever" by every objective measure: bearing acres, yield per acre, production by county and production by variety – all the metrics we calculate.

Where we missed was in just how exceptional the crop was, not just certain ways, but in nearly every way. Outliers and more outliers. The graph below shows just how exceptional the yields (lb. per acre) were for <u>all</u> regions in 2020:



Two further examples to share, but there are many more:

Colusa County had an average production for the three previous years of around 2050 lb per acre, and yet in 2020/21 was 2730lb - Truly Unbelievable!!

Our in-house estimate for the 2020/21 Nonpareil Crop was 1150 million lb, which would have been a 10% percent increase over the previous best NP crop in 2019, but instead was 1296 million lb and a whopping 24% increase. Unbelievable!!!
To think of the teeth gnashing angst when we first called for a "billion-pound NP crop"?!

So, our 2020 estimate of 2.96 was, in the end, a bit shy of the actual 3.1 billion pounds, and examples like the above demonstrate that even with the superlatives that we reported – perfect bloom, amazing weather, tremendous consistency – our estimate fell short of our calling exactly the record shattering bounty.

Moving to our predictive phase, 2021 Crop does not really compare: excellent bloom weather, and average post-bloom weather (thus far), and yet the crop is obviously inconsistent; there is more typical regional variation, some varieties struggling, and the natural tendency of those many trees that had "limb breaker" crops to take a bit of a breather, a characteristic often attributed to Nonpareil.

Now seems like a good time to review the recent yield history, and we'll stick to the last six years for reasons of the New Normal (as described in a previous report):

Year	Yield
2015	2070
2016	2270
2017	2260
2018	2080
2019	2150
2020	2500
2021e	*2190e*

Perhaps irrelevant, but the 5-year average yield <u>before</u> last year's record-breaking crop is 2,166 lb per acre.

For the record, our multiplier this season is 1.28 million bearing acres: this is derived from 1.242 million acres confirmed (Land IQ) for 2020 crop, plus 95,000 acres planted in 2018 (Land IQ), less about 60,000 acres removed since 2020.

In the last couple of years, we have been assuming about 40,000 acres being removed per annum. This year we were stunned by the sheer number of acres we saw with our own eyes having been pulled out: some obviously very old, unproductive and past their best but others clearly in their prime yet impacted by the increasingly severe water situation.

In past reports, you will remember our concept of the "early consensus", a crop number that magically appears, and gains traction only through repetition. We would say that this year, there really wasn't one, with everyone distracted it would seem by the excellent weather, logistical problems, and the perception of ongoing oversupply, on which subject, more later.

So, using the broad generalizations that we love, in the past 3 seasons about 300,000 acres have been added to the bearing total; these probably consist of 33% Nonpareil, 33% Pollinator (most often Monterey, Aldrich, Wood Colony) and 33% Independence. We would suggest that the varieties removed were older orchards of predominantly Nonpareil, Carmel and Butte/Padre.

We can only guess as to what these changes will bring about in terms of the overall average productivity, but there is clearly a wave of new orchards still approaching their prime with a capacity to produce stellar yields; part of the reason for this is the very high crack out of the Nonpareil and Independence varieties in particular, and their proven record of high production.

Some comments by Variety:

Nonpareil – NP Crop does not look as heavy as last year and we saw many orchards with bud failure which is unusual in this variety;

Independence – Looked to be very good crops again this year and this variety continues its ascendancy;

Monterey/Fritz – both looked to be very good crops but clearly still had to "drop" some of their nuts in the coming days / weeks;

Butte/Padre – On declining acreage, this variety looks to have another decent crop but not as good as last year. Sizing looked a little bigger than usual and it will be interesting to see if this translates into larger kernels at harvest;

Some comments by Region:

The North – Is clearly taking a break this year after producing a "monster" crop in 2020;

Mid-State – Is a "mixed bag" with many inconsistent crops, depending on their performance last year;

The South – Looks to be the best area of the state with some inconsistent yet decent crops. It was in this area, especially Kern Co., where we saw quite a few (large) orchards removed that were in production last year.

We will now take a brief moment to look at the demand side of the equation. After the March position report the expectation is for continuing very strong shipments. We don't find it controversial to suggest that shipments will comfortably reach 2.8 billion pounds for the season 2021; by coincidence this number is also our 2021 Crop Estimate based on 1.28 million acres, therefore statewide average yields are just shy of a tonne per acre, which is a good, but overall, an unspectacular crop.

If there is a typical season to season consumption increase, a 2.8 Billion crop may be well shy of projected shipments for next season; we anticipate a carry out in the region of 650m lb that will supplement supply for the 2021/2022 season, but focus is then drawn onto the potential production for the 2022/2023 season.

In this regard there is universal pessimism concerning the long-term availability of both surface and ground water to produce Almond crops in significant parts of the state, let alone to maximize production. With ever increasing costs, exponentially so for water, we have been arguing for some time that prevailing prices have been below cost for a significant number of farmers who have been reluctant to show interest in long term contracts at current prices. We hardly expect this situation to change any time soon.

To conclude, a good almond crop is on the way and the world is replete with challenges. Covid is still with us, but if the world economy shows signs of recovery, then surely this can only further stimulate demand. Or, perversely, have universal lockdowns boosted almond (and nuts in general) consumption, and we will see a levelling off as economies open up? Only time will tell.

As ever, any dissenting views are welcome and will be considered. And as always, this report comes with a full money back guarantee.

Michael / Stuart / JJ

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