

Congratulations to this year's crop of winning photo submissions! In addition to their cash award, each will receive our most recent USB flash drive collection featuring hundreds of images. More details on our image collection are available at: <http://ipni.info/nutrientimagecollection>.

With the close of last year's contest, we are already preparing the 2018 edition. Look for more information in the near future. You can also check back with the contest's website [www.ipni.net/photocontest](http://www.ipni.net/photocontest) for details on how to make a submission.

Thanks to all for supporting our contest! **BC**

## 4R Nutrient Stewardship Category



See Image Slide Show!

### FIRST PLACE:

#### Localized Placement of Urea to Maize

**Ms. Ruth Atchoglo**, Agricultural Experimental Station in Lomé, Southern Togo.

Urea is placed in a localized nests beside maize plants 1 month after planting at a rate of 60 kg N/ha. These fertilizer nests should be covered to avoid losses from N volatilization. This placement helps to reduce nutrient losses and improve crop N uptake.



### SECOND PLACE:

#### Direct Seeding on the Canadian Prairies

**Mr. Lyle Cowell**, Northeast Saskatchewan, Canada

Seed, starter fertilizer, and banded anhydrous ammonia ( $\text{NH}_3$ ) combine to efficiently apply fertilizer with minimal soil disturbance. This is the view from on top of a seed cart while a farmer is getting ready to direct seed and fertilize his canola crop in a single pass.



## Primary Nutrient Category

**FIRST PLACE:****Phosphorus Deficiency in Cotton**

**Dr. Srinivasan Subbiah**, Kovilpatti, Tamil Nadu, India.

Rain-fed cotton plant in flowering stage that is growing on black calcareous soil. The leaf nearest to flower has developed interveinal purple pigmentation. The soil test (Olsen-P) revealed a very low ( $<1.4$  mg/kg) P concentration. Leaf tissue analysis was 0.11%.

**SECOND PLACE:****Potassium Deficiency in Cashew**

**Mr. Rahul Kulkarni**, Usgaon, Ponda, Goa, India

Symptom first appear on the older leaves as yellowing of margins progress towards the midrib. Soils in this region are acidic (pH 6.2), highly weathered, and are deficient in the available potassium.



## Secondary Nutrient Category

**FIRST PLACE:****Magnesium Deficiency in Avocado****Dr. Jaume Cots Ibiza**, Oliva, Valencia, Spain.

Leaves show interveinal chlorosis which progressed from the margins of the leaves. This farm has a sandy soil with low soil organic matter and a pH of 7.4. Tissue was low in magnesium (0.32% Mg). Application of Mg fertilizer source at the beginning of sprouting corrected the problem for the remainder of the season.

**SECOND PLACE:****Magnesium Deficiency in Tomato****Ms. Cristina Pulido Gilabert**,

Torre Pacheco (Murcia), Spain.

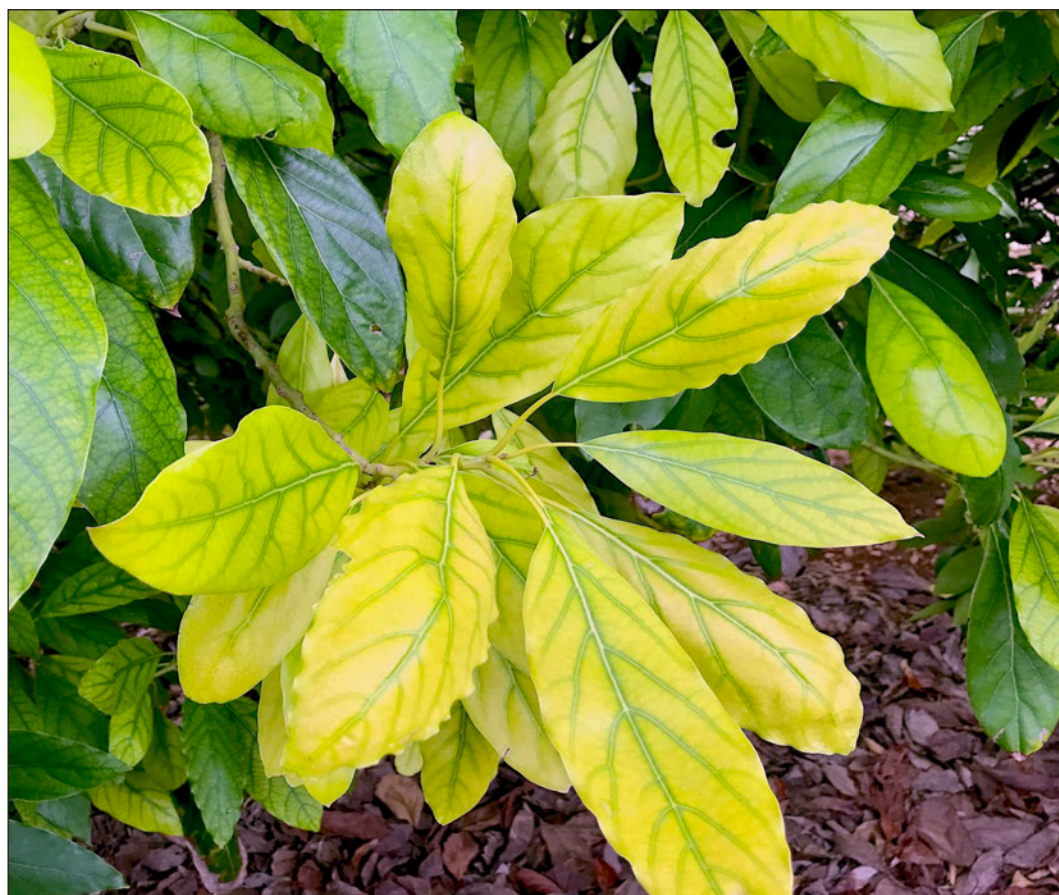
Interveinal chlorosis is visible on mature leaves. Main leaf veins remained green. The site had loamy textured soil (pH 7.4) with low organic matter (0.86%) and high carbonate concentrations (52%). Soil testing indicated 0.23 meq Mg/100g soil. The site had no history of Mg fertilization, but plants improved and the symptoms disappeared with an in-season application of magnesium sulfate.



## Micronutrient Category

**FIRST PLACE:****Boron Deficiency in Mango****Mr. Sandesh Nayak,**Farmer Field Near Krishna Ganj,  
District Sirohi, Rajasthan, India.

Severe fruit cracking symptom attributed to boron deficiency. The deficiency becomes more prominent in summer months when temperatures can reach 44 to 46°C (110 to 115°F) and water availability becomes poor. Soil status was 0.1 mg/kg and plant concentration was 4.5 mg/kg.

**SECOND PLACE:****Iron Deficiency in Avocado****Dr. Jaume Cots Ibiza,** Altea, Alicante, Spain.

Extreme iron chlorosis where the leaves are losing their green appearance. The soil is low in organic matter and has a high concentration of active calcium carbonate (12.5%) and a pH of 7.8. Iron-based fertilizers have not been applied here for a long time. Foliar analysis found an extremely low Fe concentration of 23 ppm. This problem tends to decrease progressively after the application of a EDDHA chelate source of iron.