

Surveillance Overview 2013

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2013 Surveys

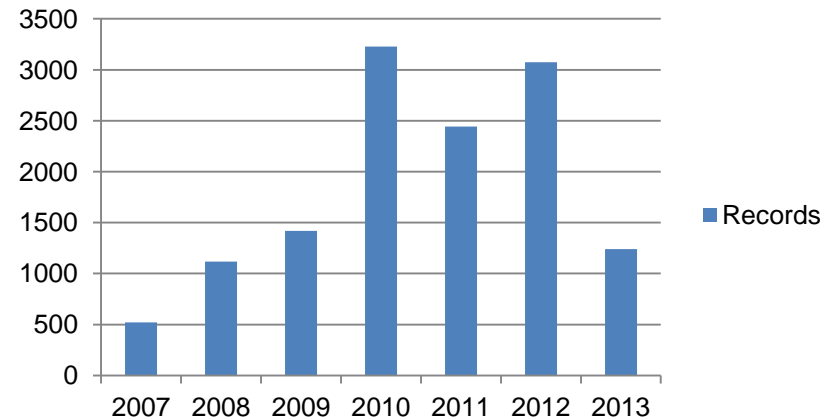
2013

- 1240 published records in Toolbox / RustTracker
- 16 countries (to date – more coming)
- 2 new countries – Malawi + Tanzania

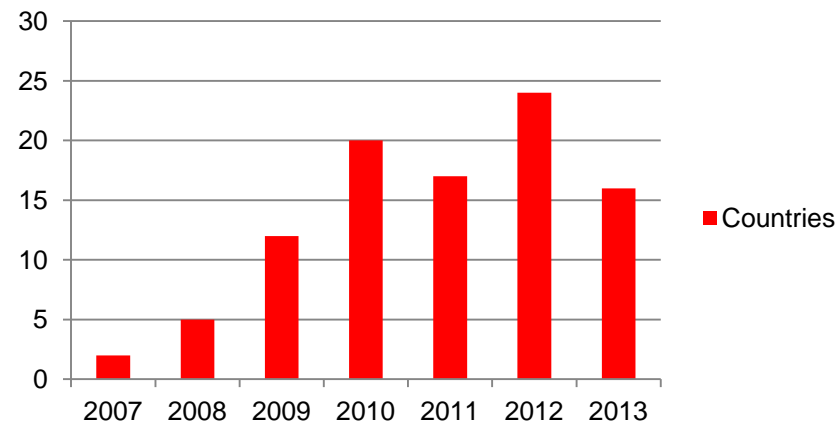
Overall

- 13,043 published survey records
- 35 countries

Records



Countries



Geographical Coverage - 2013



Stem Rust: 200 records



Leaf Rust: 504 Records



Yellow Rust: 481 records

Number of observations: 481



Pakistan: Yellow Rust 2013 vs 2012

2013

LEGEND ● None (0) ● Low (< 20%) ● Moderate (20 - 40%) ● High (> 40%)

Number of observations with location coordinates: 205



2012

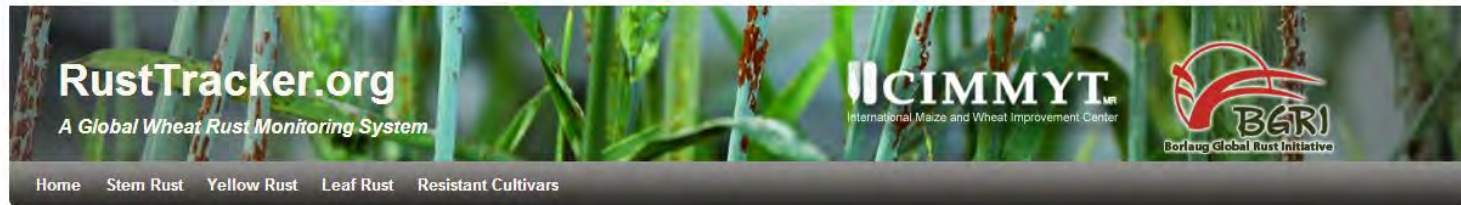
LEGEND ● None (0) ● Low (< 20%) ● Moderate (20 - 40%) ● High (> 40%)

Number of observations with location coordinates: 152



Pakistan: Yellow Rust Severity 2013 and 2012
(Red Dots = High (>40%) severity, Green Dots = No disease)

Caution Issued – May 17th



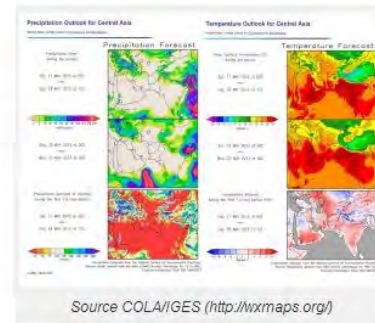
← April 30, 2013: Study published confirming the presence of Sr31 virulent races of stem rust in Tanzania May 20, 2013: Pakistan – 2013 Rust survey summary update →

May 17, 2013: CAUTION – POTENTIALLY SERIOUS OUTBREAKS OF YELLOW (STRIPE) RUST IN CWANA REGION. VIGILANCE NEEDED IN EAST AFRICA

Posted on May 17, 2013 by David Hodson

Conducive climatic conditions for rusts, especially [yellow rust](#), are resulting in potentially serious outbreaks in the CWANA region. Cool and wet conditions have persisted in many countries from [Turkey](#) to [Bhutan](#). Early yellow rust infections have been observed in several countries, with serious outbreaks developing on susceptible cultivars. The current yellow rust situation appears to be slightly less severe than in 2010, but is still a cause for concern. Warming temperatures may help to contain the disease, but further outbreaks on susceptible cultivars are likely. A brief regional summary compiled by national partners, [ICARDA](#) and [CIMMYT](#) is provided.

In [India](#) and [Pakistan](#), where the wheat season is now complete, yellow rust was widespread on susceptible cultivars. Cultivars noted as susceptible were: Seher-06, Super 172, HD 2733, HD 2894, HD 2851, HD 2932, WH 711, PBW 343, Barbet. However, large scale epidemics were avoided in both countries due to a combination of newer [resistant cultivars](#) and chemical control. Recent reports in the Indian media (<http://www.hindustantimes.com/Dunish/Amritsar/Daenita>)



- Informing early warning in Ethiopia

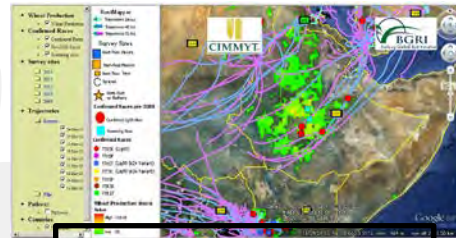
Early warning – Ethiopia 2013



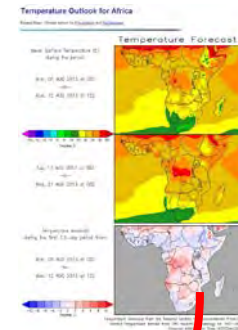
Global Rust Monitoring System Assessment



CWANA – Yellow Rust Outbreaks (surveys)



Regional Winds



Climatic Conditions – favourable for yellow rust?



Rust Caution – May 17th

- Action Steps:**
- Informal rust planning meeting: 12th June 2013 (CIMMYT, EIAR, FAO)
 - Comprehensive Belg season surveys (EIAR/CIMMYT)
 - Formal rust planning meeting , 6th August 2013 (CIMMYT, EIAR, MoA Extension Directorate, ATA, FAO, Animal & Plant Health Directorate)
 - MoA, Extension Directorate + EIAR: Early, main season surveys on-going now

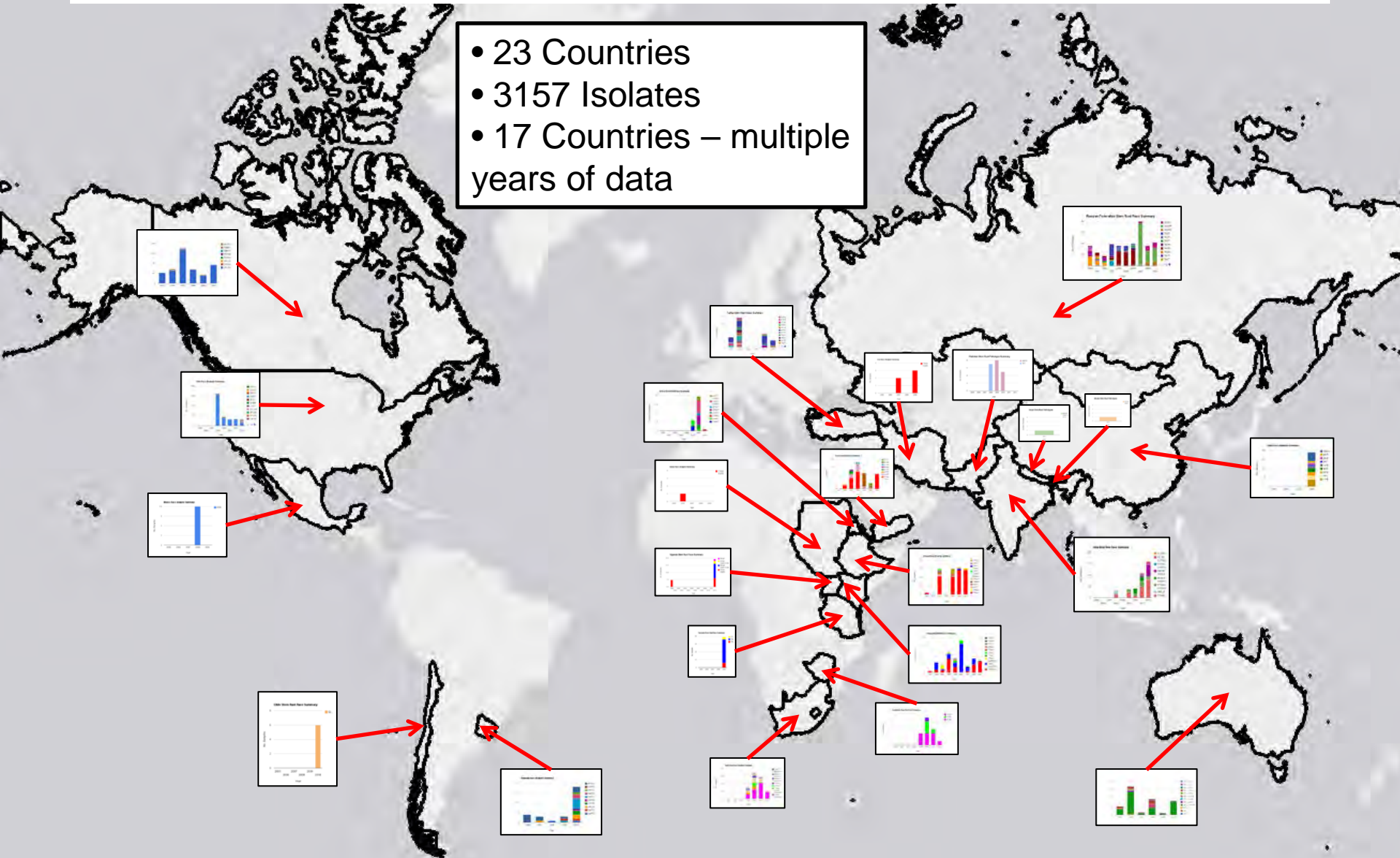
Derived Information from Surveys: Stem Rust Hotspots

NEW

- Added value
- Linkages to models
- See ppt at conference

Stem Rust Pathotypes - Overview

- 23 Countries
- 3157 Isolates
- 17 Countries – multiple years of data



Issues / Comments

- Surveys:

- ▶ Excellent coverage + a unique data resource
- ▶ Now seeing value addition
- ▶ Can we keep it going / expand?
- ▶ Timeliness of reporting – more surveys undertaken in 2013 than reported (Please report asap)

- Pathotypes:

- ▶ Good coverage. No new Ug99 races. TTKSF in Uganda
- ▶ Time lags in reporting (some inevitable)
- ▶ 2013: only 2 countries to date. 2012: 9 countries – 5 of which from DNA molecular diagnostics
- ▶ Improve information flows
- ▶ Expand use of existing resources – DNA, GRRC