

International Winter Wheat Improvement Program



IWWIP- Crossing and Speed Breeding System

Crossing Block Winter Facultative Wheat (200-250 entries annually) divided into:

- Irrigated Group (IWWIP, Eastern Europe, W. Europe, Iran, USA)
- Semi-Arid Group (IWWIP, USA, Iran, landraces and old varieties)

Crossing Block Spring Wheat (100-120 entries annually)

CIMMYT-Mexico latest germplasm and Turkey varieties.

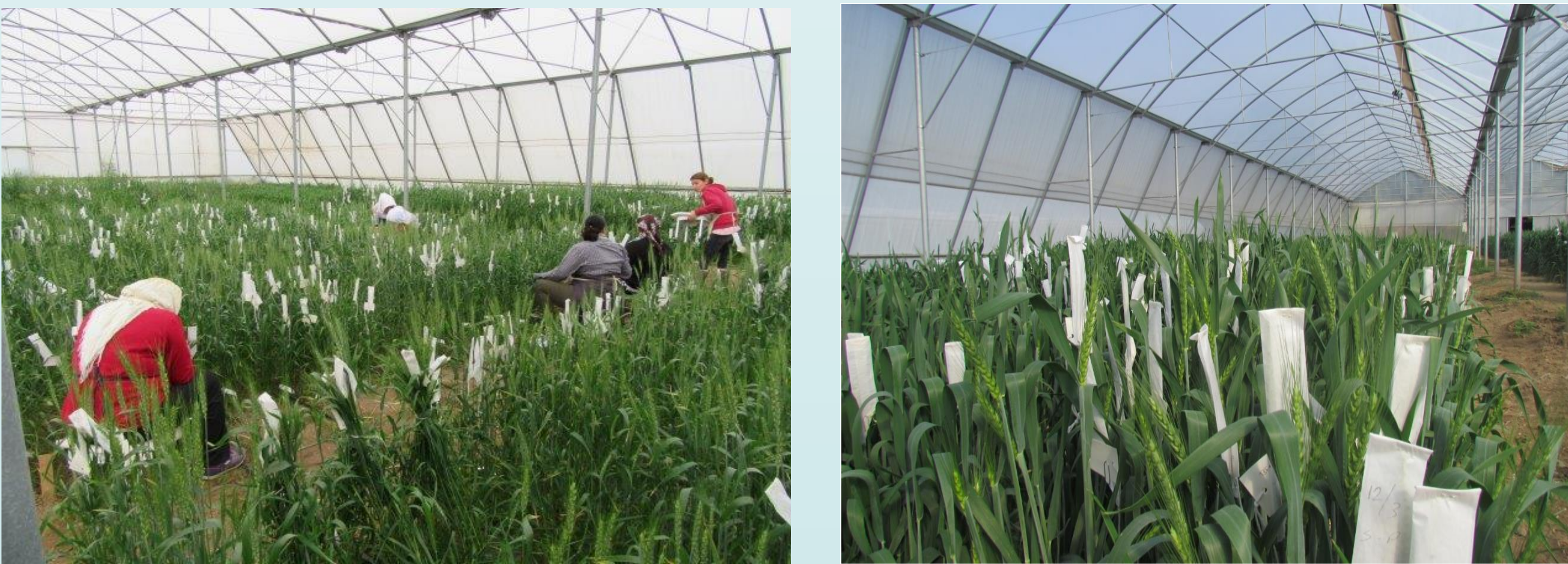
Evaluated for Yellow Rust resistance in the field at 2 sites (Haymana and Izmir) and at seedling stage in Ankara by Central Field Crop Research Inst. Pathology Group

Types of Crosses:

Winter x Winter; Winter x Spring; Winter x Winter x Winter; Winter x Spring x Winter

At least two parents are required to have resistance to Rust including at least one parent with APR

- Crosses made in Izmir in February & March GH
Total 800-900 crosses
- Cross seed and F1-Top planting in Izmir-greenhouse and field



winter wheat is vernalized for 5 weeks +1-3 C

	TRADITIONAL BREEDING		SPEED BREED.	
1st year	AXB and F1XC	GH	AXB and F1X C	GH
	F1 and F1 TOP	GH	F1 and F1 TOP	GH
	↓		↓	
2nd year	F2 BULK	FIELD	F2-F3-F4	Speed GH
	↓		↓	
3rd year	F3 BULK	FIELD	F5	Head Row
	↓		↓	
4th year	F4 HR	FIELD	F6	PYT
	↓		↓	
5th year	F5 PYT	FIELD	F7	YT 3 locs. 2 reps
	↓		↓	
6th year	F6 YT	FIELD	F8	AYT 7 locs. 3 reps
	↓		↓	
7th year	F7 AYT + AYT-Head Rows	FIELD	International Distribution	
	↓			
8th year	Candidates FAWWON	FIELD		
	↓			
9th year	International Distribution			

- More than 110-150 F2 populations goes to New Greenhouse to planted for speed breeding. Total 22.500 plats.
- Winter wheat: F2-F3-F4 for 13-14 months complete 3 generations:
- F5 goes to field planted in Center Plato (Konya or Eskişehir).