

International Quinoa Conference 2016:

Quinoa for Future Food and Nutrition Security in Marginal Environments

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www.quinoaconference.com

Quinoa evaluation and production in highland, sea level Argentina and Uruguay lowland.

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Background/Introduction

**MOVING FROM RESEARCH TO EXTENSIVE
SUSTAINABLE QUINOA PRODUCTION**



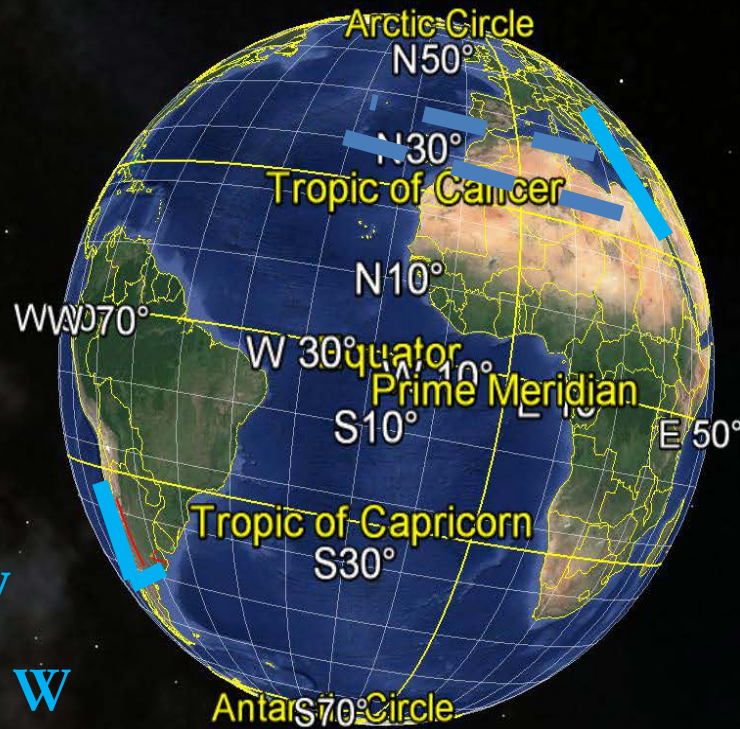
Background/Introduction

27° S 67° W

34° S 54° W

36° S 61° W

38° S 65° W

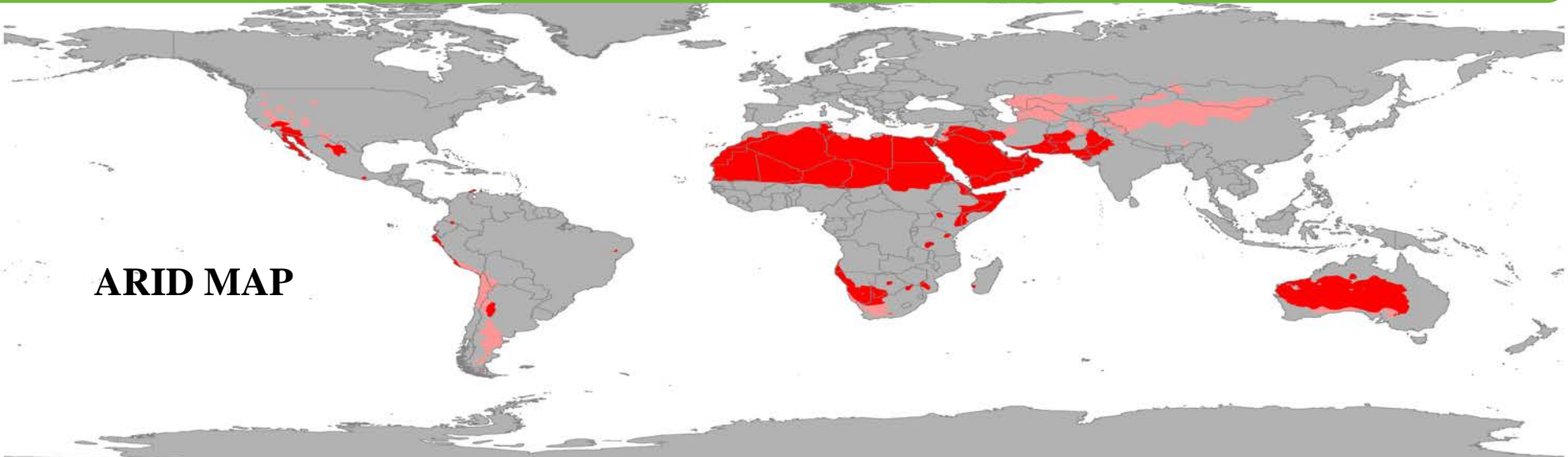


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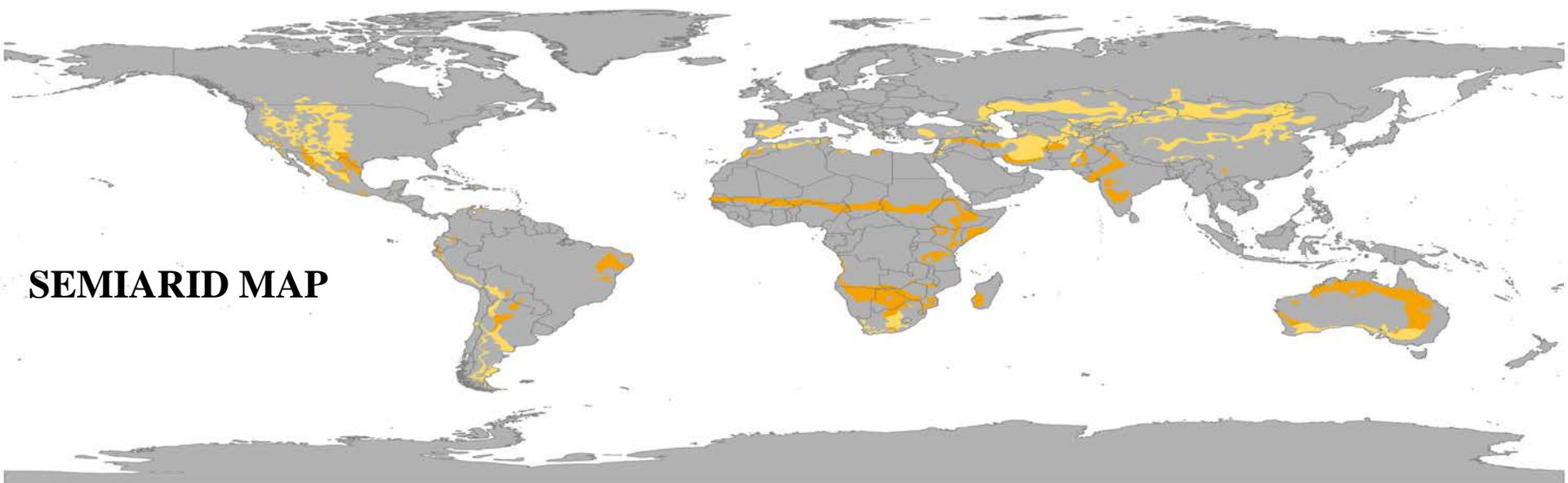
Google Earth

Background/Introduction

ARID MAP

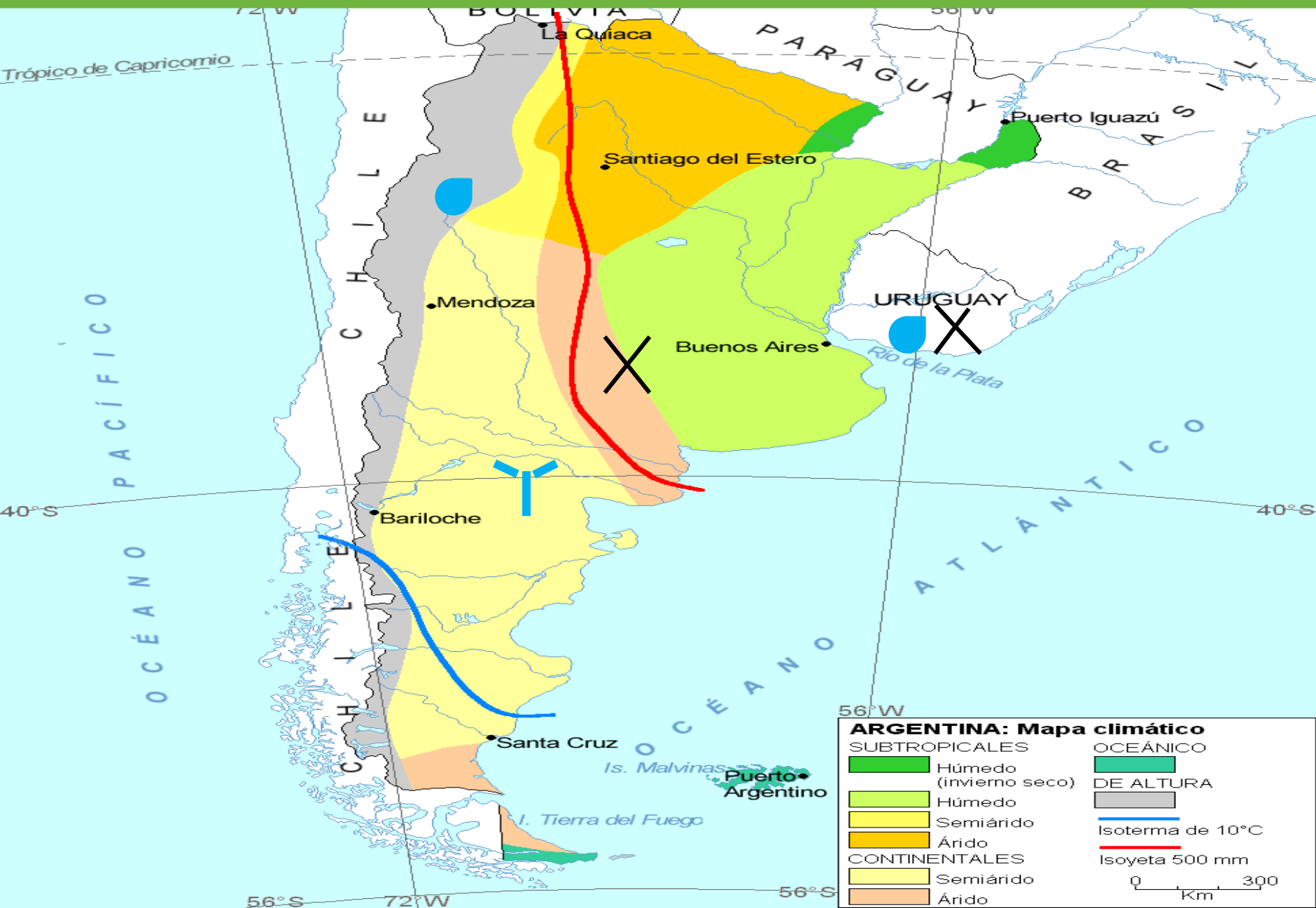


SEMIARID MAP



Af	BWh	Csa	Cwa	Cfa	Dsa	Dwa	Dfa	ET
Am	BWk	Csb	Cwb	Cfb	Dsb	Dwb	Dfb	EF
Aw	BSh		Cwc	Cfc	Dsc	Dwc	Dfc	
	BSk				Dsd	Dwd	Dfd	

Materials and Methods



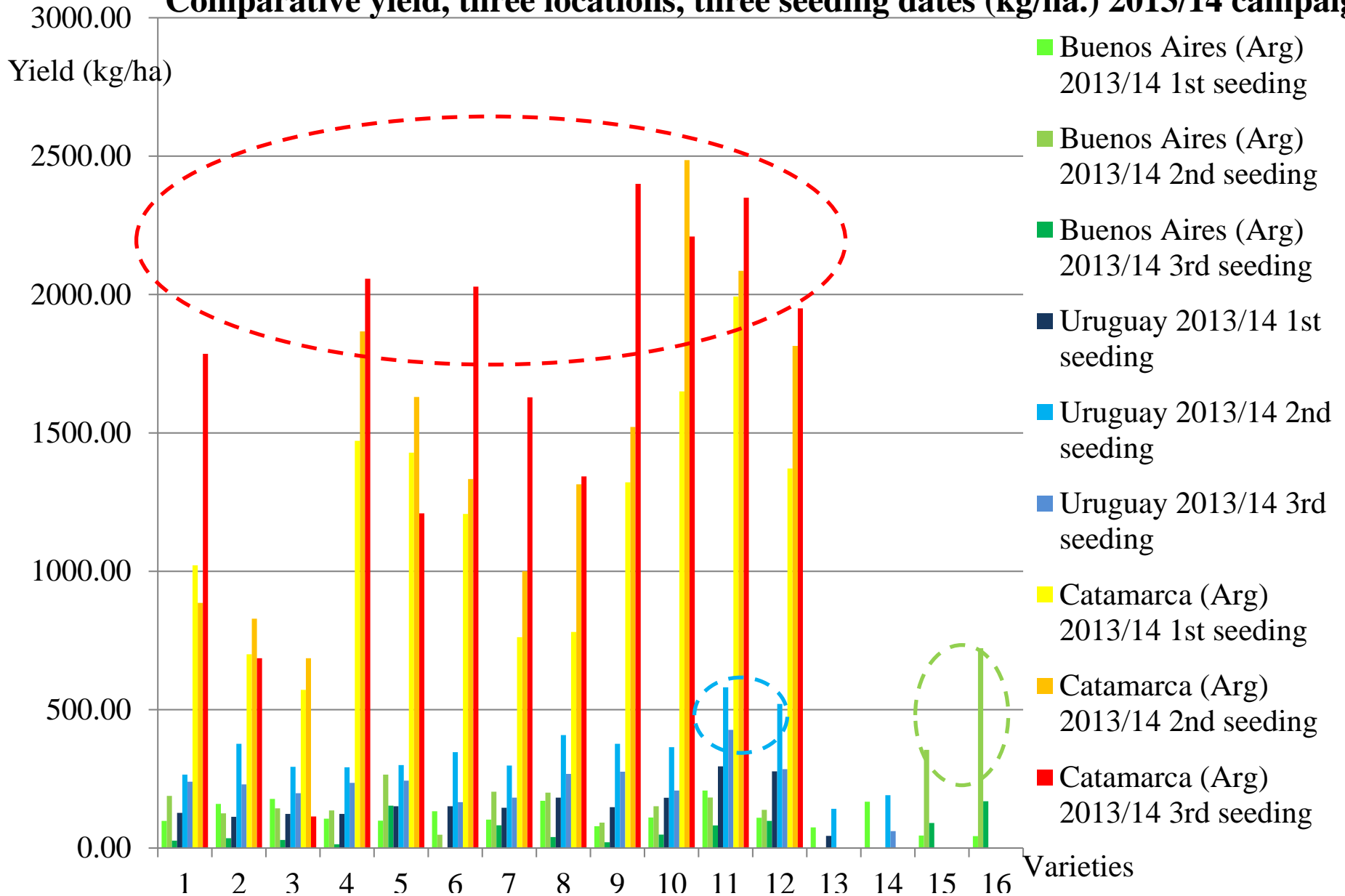
Materials and Methods

Fertilization at Buenos Aires province (growing season 2014/15)

Variety ID	Fertilization date	Days after sowing	Phenologic stage	Urea (N) (kg/ha)	MPA (P) (kg/ha)	KNO3 (K) (kg/ha)
1, 2, 4, 9	21/10/14		Sowing	91	70	42
1	10/12/14	50	Beginning of branching	91	70	
1	17/12.14	57	Beginning of branching			42
2, 4, 9	19/12/14	59	Beginning of branching	91	70	42
1, 2, 4, 9	15/01/15	86	Beginning of flowering			

Results

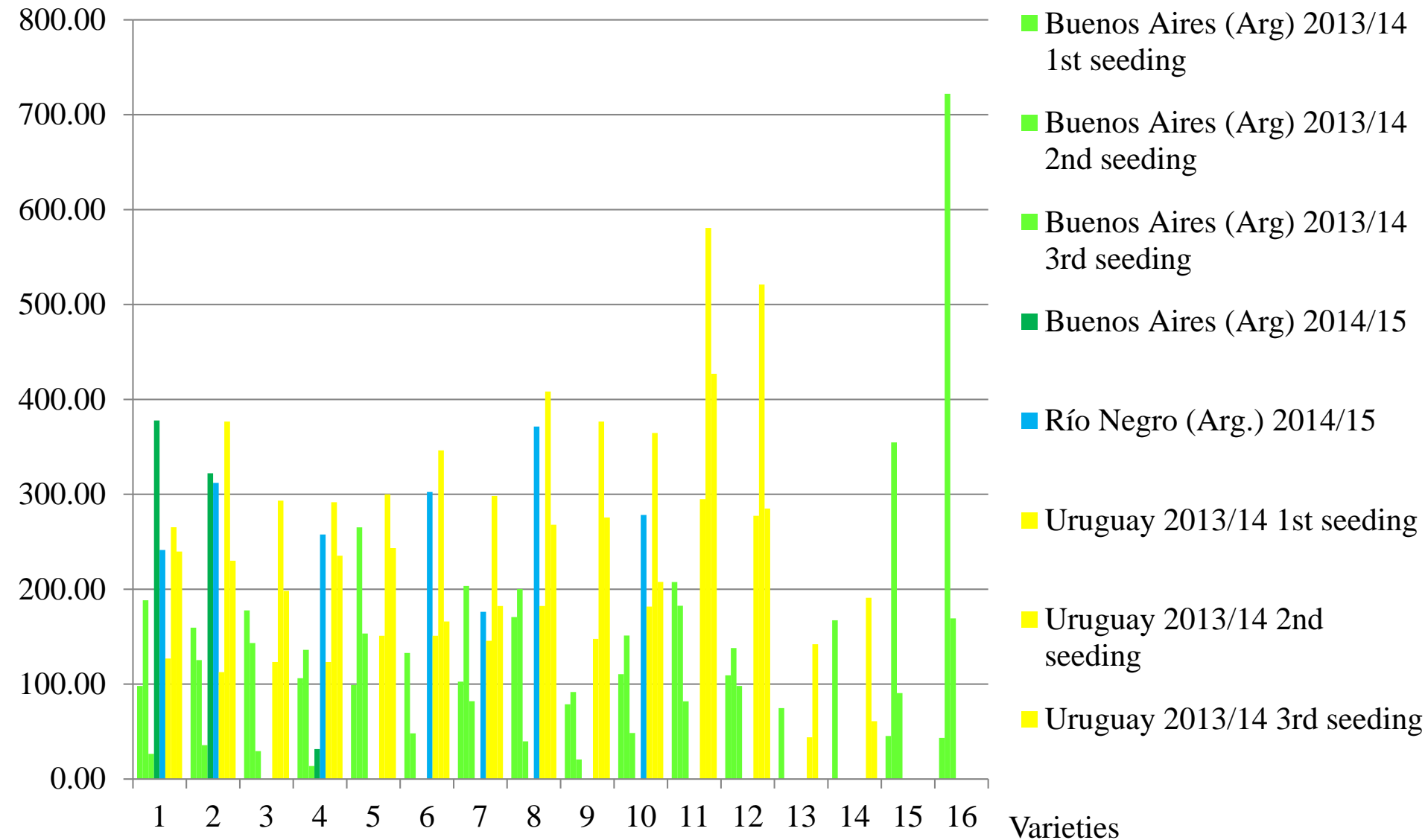
Comparative yield, three locations, three seeding dates (kg/ha.) 2013/14 campaign.



Results

Comparative yield, three locations, three seeding dates (kg.). 2013/14/15 campaigns.

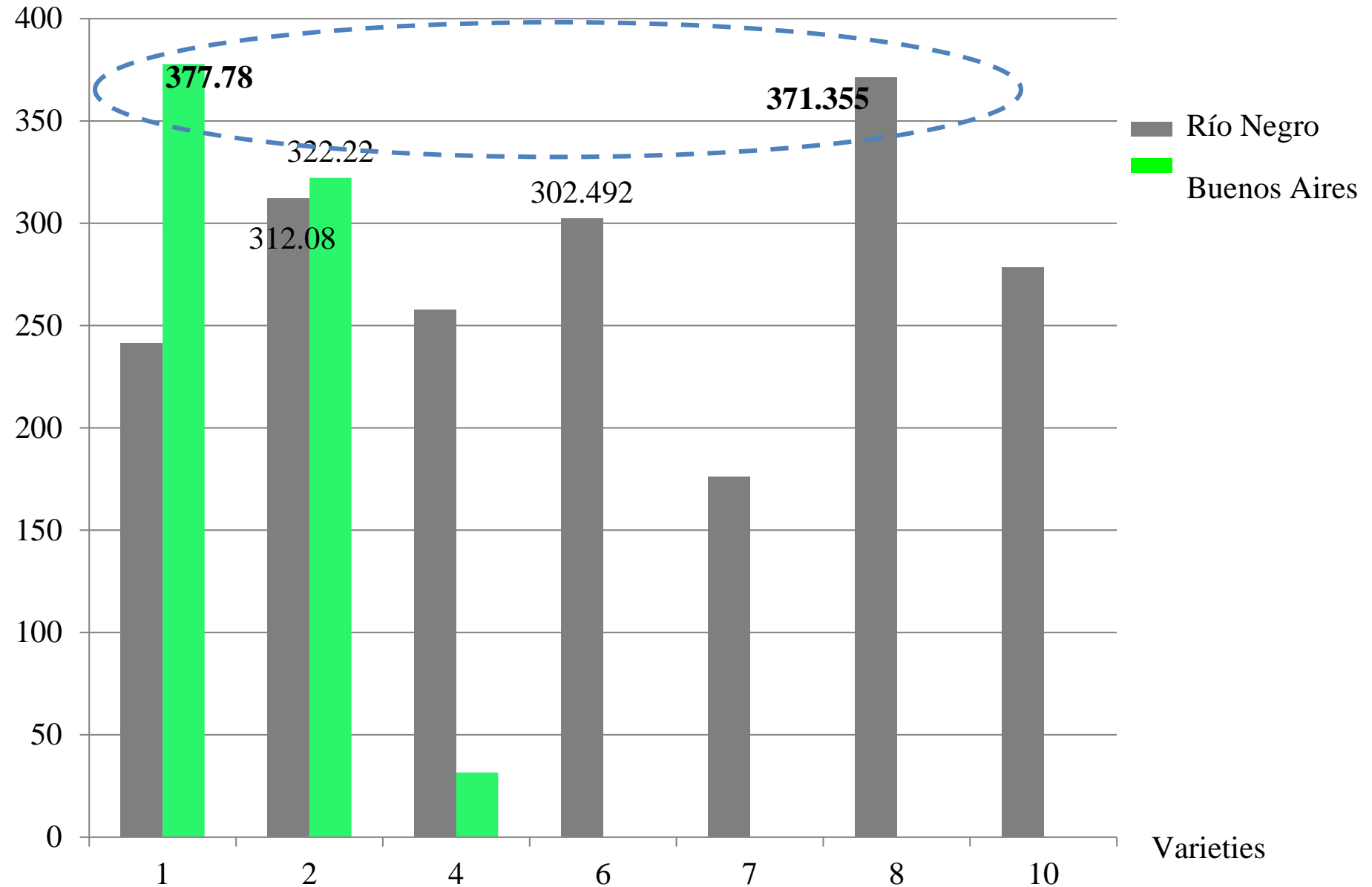
Yield (kg./ha)



Results

Yield (kg./ha)

Comparative yield, two locations, (kg/ha.) 2014/15 campaign.



Conclusions

- + **Northern altitude, great yield potential** with organic and conventional production, **drip water use efficiency**.
- + **Sea level, conventional direct seeding in extensive production** as **investing options** too. Evaluation of **stability** through time.
- + Quinoa extensive sustainable production in arid and semiarid Argentina to contribute global food security:
 - ++ **8th larger surface** in the world.
 - ++ **Variety of climates and altitudes**.
 - ++ **Low cost/ha**.
 - ++ **High technology for production**.
 - ++ **Highly educated** human resources.
 - ++ **Clusters** that include research, **efficient** qualified institutions, trade.