

**Table S1.** Individual trials used to estimate CWP averages presented in **Table 2**.

Author	Crop	Year	Location <sup>1</sup>	CWP kg ha <sup>-1</sup> mm <sup>-1</sup>
Li et al 2000	Flax	1991	Xifeng	5.1
Li et al. 2000	Flax	1990	Xifeng	4.3
Deng et al. 2006	Maize	Multi-year	North China Average	15.4
Wang et al. 2008	Maize	2002	Yuzhong	11.2
Wang et al. 2008	Maize	2003	Yuzhong	12.1
Wang et al. 2008	Maize	2004	Yuzhong	10.6
Zhou et al. 2009	Maize	2006	Yuzhong	0.4
Zhou et al. 2009	Maize	2006	Yuzhong	3.1
Zhou et al. 2009	Maize	2006	Yuzhong	2.8
Zhou et al. 2009	Maize	2007	Yuzhong	1.3
Zhou et al. 2009	Maize	2007	Yuzhong	16.6
Zhou et al. 2009	Maize	2007	Yuzhong	9.9
Zhou et al. 2009	Maize	2007	Yuzhong	13.1
Zhou et al. 2009	Maize	2007	Yuzhong	15.2
Deng et al. 2006	Millet	Multi-year	North China Average	6.1
Dong et al. 2013	Millet	2010	Huining	3.7
Huang et al 2008	Pea	2002	Dingxi	8.7
Huang et al 2008	Pea	2003	Dingxi	6.3
Huang et al 2008	Pea	2004	Dingxi	10.7
Huang et al 2008	Pea	2005	Dingxi	10.3
Wang et al. 2008	Pea	2003	Yuzhong	6.9
Wang et al. 2008	Pea	2003	Yuzhong	8.4
Wang et al. 2008	Pea	2004	Yuzhong	7.3
Hong et al 2011	Potato	2009	Dingxi	12
Hong et al 2011	Potato	2009	Dingxi	10.7
Wang et al. 2008	Potato	2002	Yuzhong	13.8
Wang et al. 2008	Potato	2003	Yuzhong	16.5
Wang et al. 2008	Potato	2004	Yuzhong	16.4
Wang et al. 2008	Potato	2004	Yuzhong	13.9
Deng et al. 2006	Wheat	Multi-year	North China Average	5.2
Huang et al 2005	Wheat	1997	Dingxi	3.41
Huang et al 2005	Wheat	1998	Dingxi	5.58
Huang et al 2008	Wheat	2002	Dingxi	7.1
Huang et al 2008	Wheat	2003	Dingxi	4.7
Huang et al 2008	Wheat	2004	Dingxi	9.1
Huang et al 2008	Wheat	2005	Dingxi	8.8
Li et al 2005	Wheat	1998	Dingxi	12.7

Wang et al. 2008	Wheat	2002	Yuzhong	10.8
Wang et al. 2008	Wheat	2002	Yuzhong	12.5
Wang et al. 2008	Wheat	2003	Yuzhong	11
Wang et al. 2008	Wheat	2004	Yuzhong	10.7

Average	Author	Count
Wheat	8.47	12
Millet	4.9	2
Pea	8.37	7
Maize	13.01	12
Flax	4.7	2
Potato	13.88	6

<sup>1</sup>All locations identified by counties within Gansu, except as Deng et. al 2006, which was an average across North China.