A simple spatio-temporal data fusion method based on linear regression coefficient compensation

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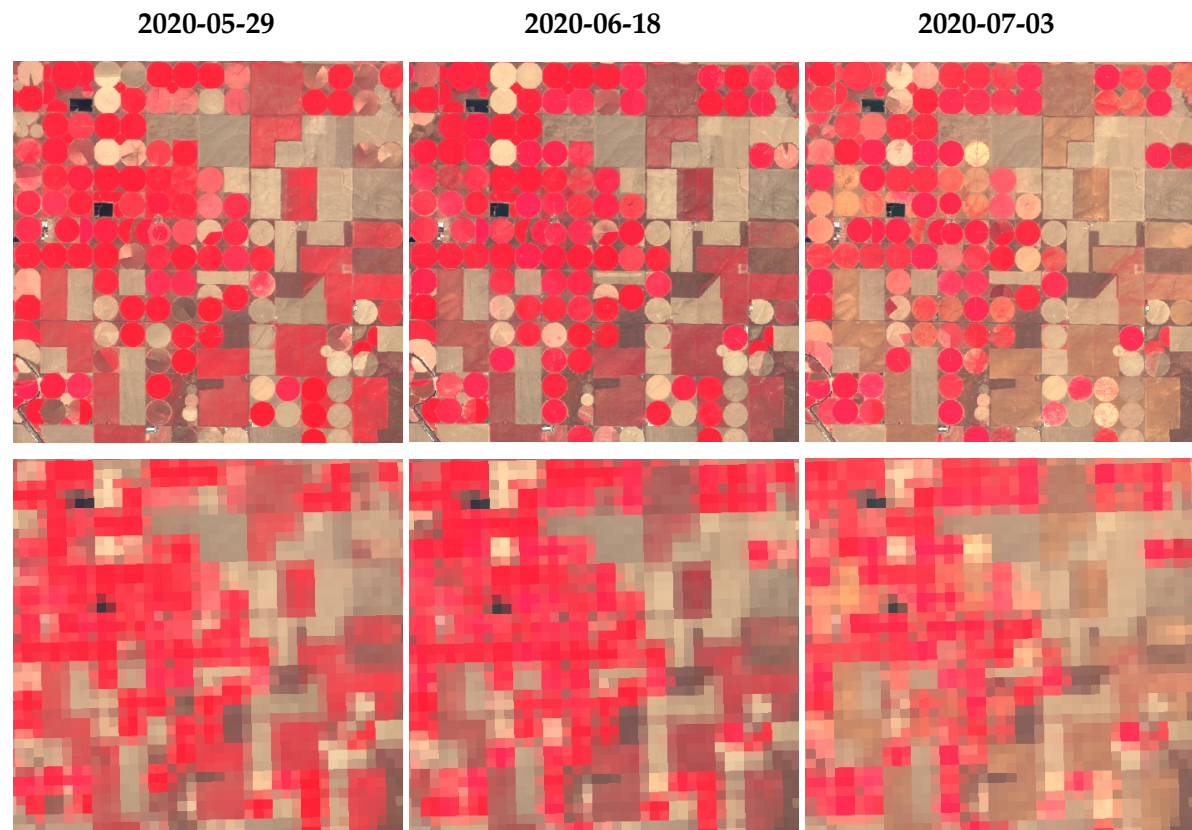***** Correspondence: tanym@buaa.edu.cn; Tel.: +86-13520825560

Zone1

Figure S1. Color composited images (RGB: near-infrared, red, green) of zone 1. (**a**)-(**c**) are Sentinel-2 images acquired on May 29, June 18, and July 3, 2020, respectively (1230 × 1200 pixels with 10m resolution), and (**d**)-(**f**) are Sentinel-3 like images aggregated from (**a**)-(**c**).

Zone2

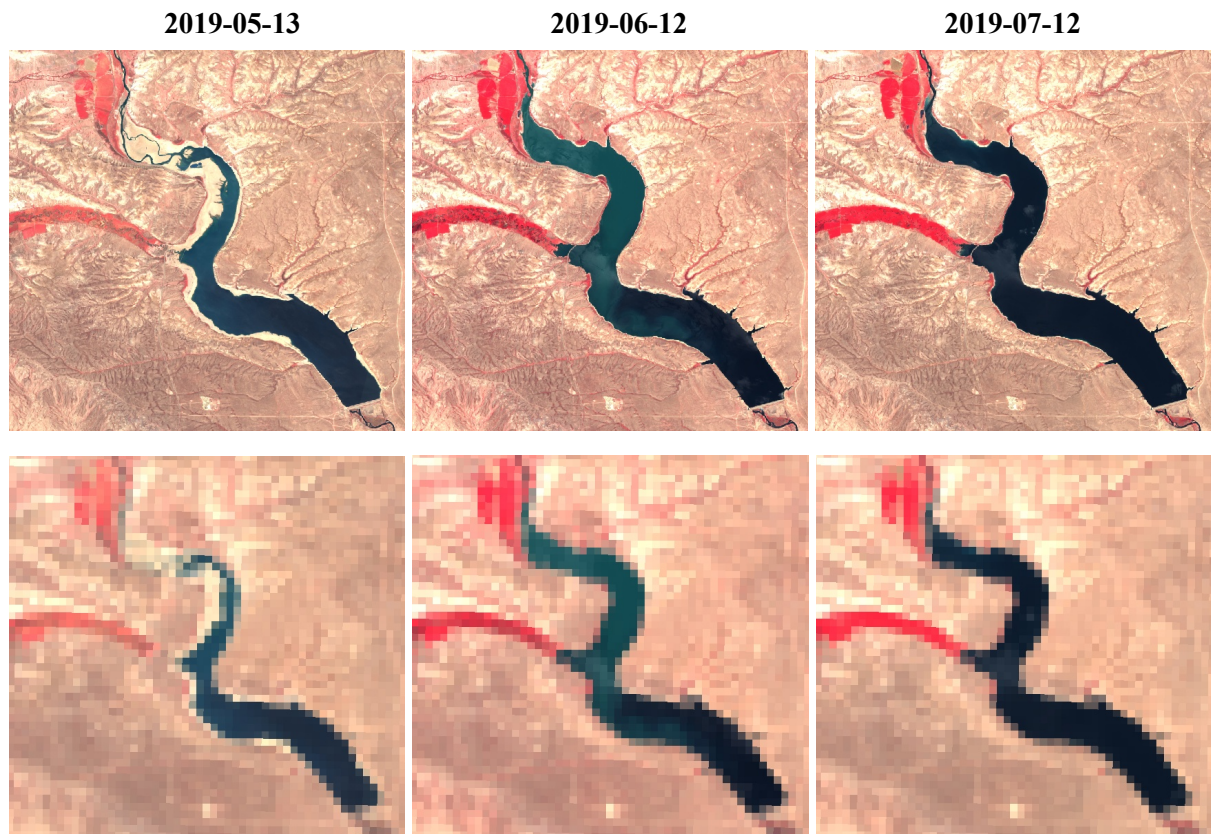**2019-05-13** **2019-06-12** **2019-07-12**

Figure S2. Color composited images (RGB: near-infrared, red, green) of zone 2. (**a**)-(**c**) are Sentinel-2 images acquired on May 13, June 12, and July 12, 2019, respectively (1530 × 1500 pixels with 10m resolution), and (**d**)-(**f**) are Sentinel-3 like images aggregated from (**a**)-(**c**).

Figure S3. Scatter plots of the observed and predicted reflectance of zone 1 from the four data fusion methods in green (B3), red (B4), and near-infrared (B8) bands, respectively.
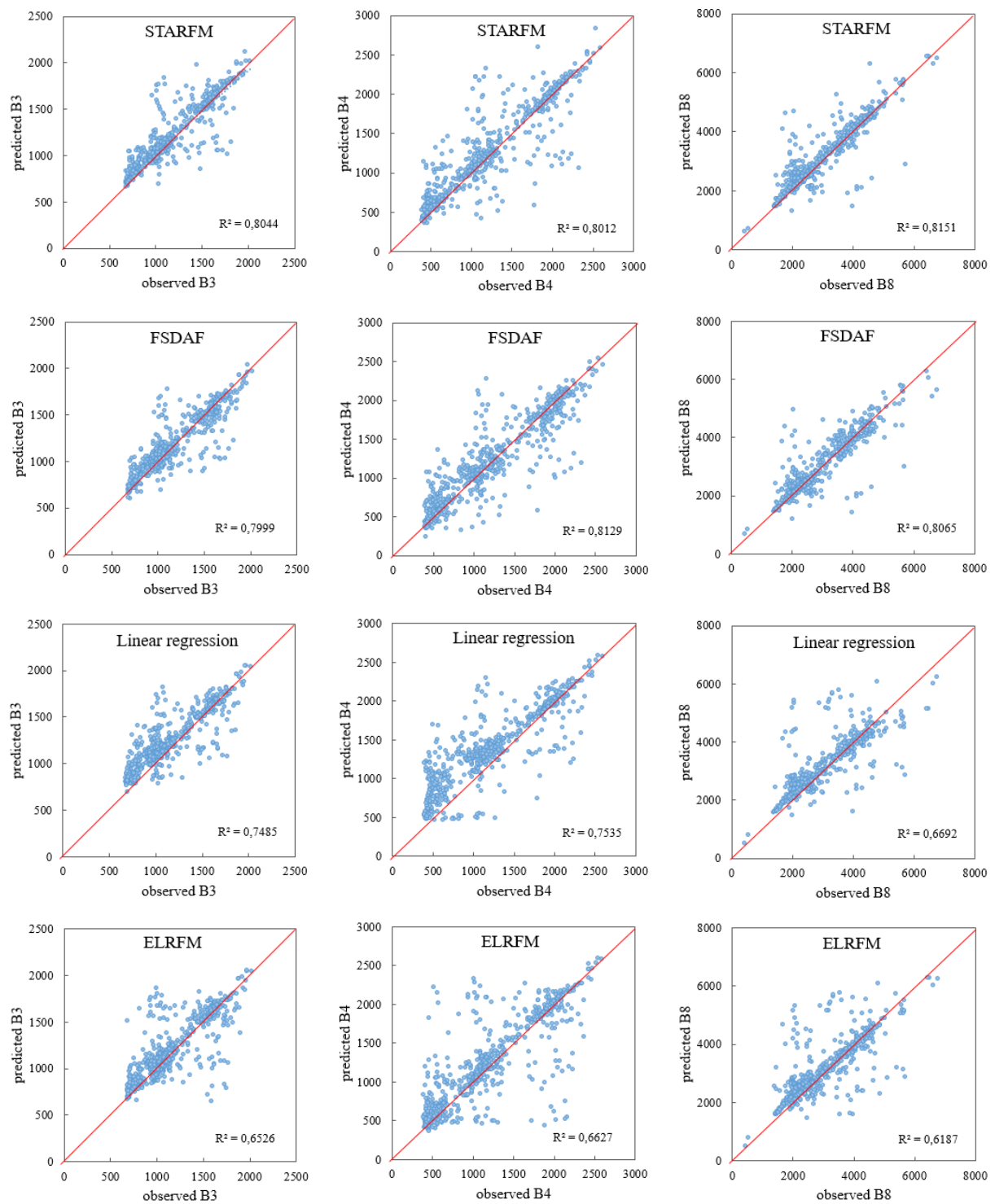
Figure S4. Scatter plots of the observed and predicted reflectance of zone 2 from the four data fusion methods in green (B3), red (B4), and near-infrared (B8) bands, respectively.
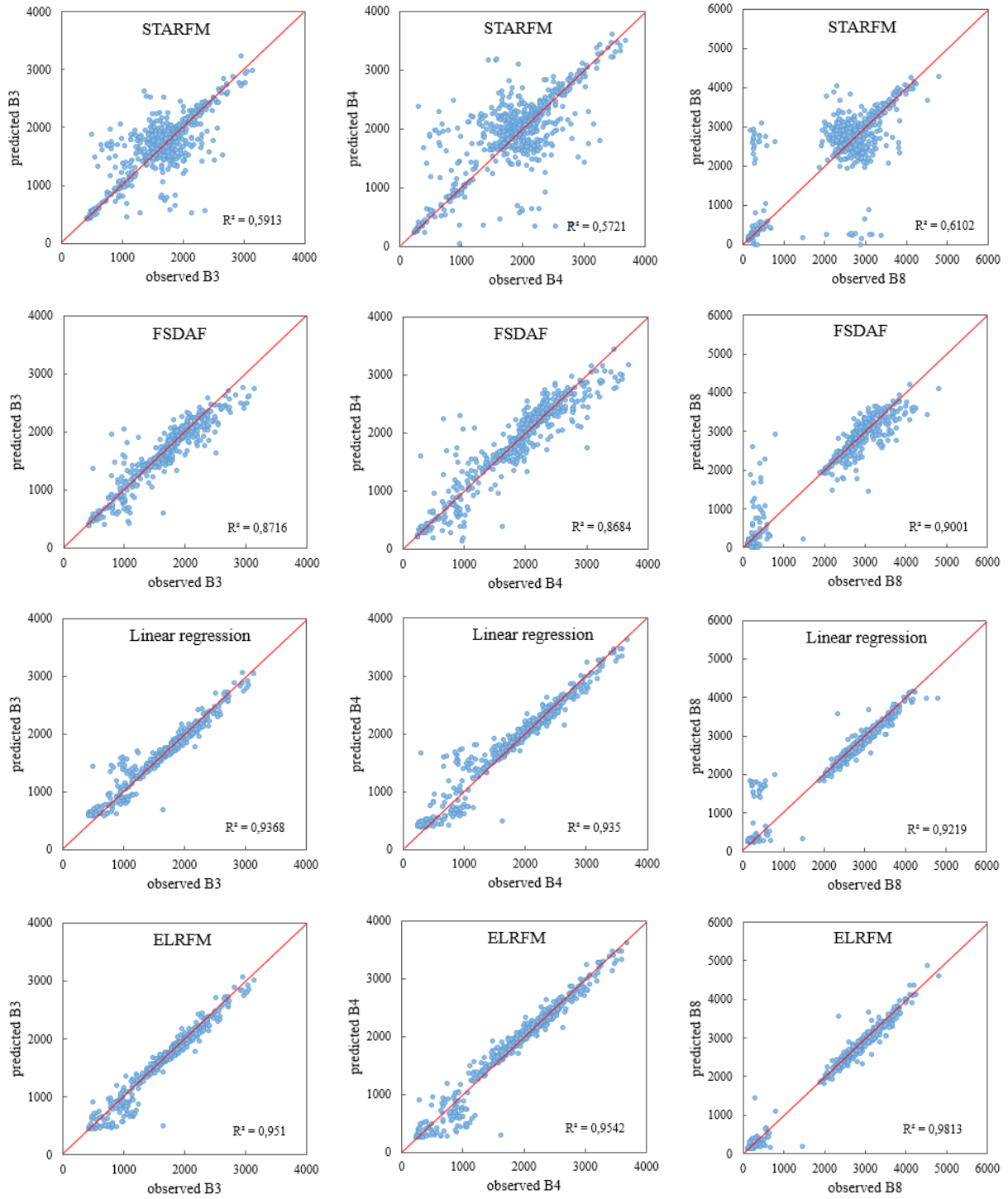
Table S1. Accuracy assessment results of the four data fusion methods. Root mean square error (RMSE), average difference (AD), average absolute difference (AAD), and correlation coefficient r, near-infrared (NIR).

Test area	methods	band	RMSE	AAD	AD	r
Zone 1	STARFM	Green	98.7149	**57.8414**	21.6511	0.9583
		Red	183.7494	**106.2487**	32.7362	0.9539
		NIR	297.9262	**156.8831**	73.8347	**0.9602**
	FSDAF	Green	**94.1787**	67.0618	-5.4023	**0.9609**
		Red	172.6924	124.0634	-13.3957	0.9587
		NIR	**293.4198**	180.6945	11.1519	0.9584
	LR	Green	147.8665	109.2354	74.0301	0.9268
		Red	282.5593	206.8130	152.2220	0.9203
		NIR	513.0738	290.3055	100.1419	0.8726
	ELRFM	Green	103.5851	72.9165	29.2471	0.9553
		Red	**171.6058**	116.0668	34.17362	**0.9600**
		NIR	478.9367	255.1953	100.3105	0.8920
Zone 2	STARFM	Green	146.2280	75.1429	32.5486	0.9553
		Red	198.8543	101.99	48.8614	0.9572
		NIR	296.2853	115.3386	51.2386	0.9530
	FSDAF	Green	173.6718	102.1443	-14.6843	0.9336
		Red	243.1650	145.03	-20.3586	0.9319
		NIR	303.7477	160.3443	-12.7443	0.9487
	LR	Green	123.6636	71.4557	3.7986	0.9679
		Red	174.3240	99.9929	35.0814	0.9670
		NIR	278.3925	138.0814	-14.7129	0.9602
	ELRFM	Green	**111.0748**	**67.2714**	-26.6257	**0.9752**
		Red	**145.2351**	**89.6814**	-5.6671	**0.9768**
		NIR	**144.7377**	**96.8714**	-61.1029	**0.9906**

The bold numbers indicate the best accuracy.