Table 1. Cropping activites that occurred during 2009-2011 at the SREC study site.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Dates** |  | **Crops1** |  | **Activity2** |  | **Description** |
| 1/21/2009 |  | ALL |  | T |  | Subsoiled soil for planting |
| 2/23/2009 |  | C |  | H |  | Sprayed 5.6oz Scepter, 2qt Prowl, 1QT Glyphosate/ac |
| 2/23/2009 |  | S, SB |  | T |  | Field cultivation |
| 3/14/2009 |  | C |  | P |  | Cottonwood cuttings 4x6 ft planted |
| 6/10/2009 |  | S, SB |  | H |  | Sprayed 1qt Touchdown, 1oz Newpath/ac |
| 6/10/2009 |  | S |  | P |  | Drilled switchgrass 10 lb/ac |
| 6/11/2009 |  | SB |  | P |  | Planted HBK 5525 Soybean 8 seed/ft 19 inch row spacing |
| 6/26/2009 |  | C |  | H |  | 16oz select Max /ac |
| 6/26/2009 |  | SB |  | H |  | 1qt Glyphosate/ac |
| 7/8/2009 |  | C |  | H |  | 2pts Post/ac |
| 8/10/2009 |  | S |  | M |  | Mowed switchgrass plots |
| 8/10/2009 |  | S |  | H |  | 1qt Glyphosate/ac |
| 8/20/2009 |  | S |  | T |  | Rotary tiller 1 inch |
| 8/24/2009 |  | SB |  | H |  | 1qt Glyphosate/ac |
| 8/24/2009 |  | S |  | T |  | Triple K soil preparation |
| 8/24/2009 |  | S |  | T |  | Brillion roller used to prepare seed beds |
| 8/26/2009 |  | S |  | P |  | Drill switchgrass (Alamo) 10lb/ac |
| 3/5/2010 |  | C |  | H |  |  4oz Scepter and 2oz pendulum/ac |
| 4/5/2010 |  | C |  | F |  | Banded Ammonium Nitrate (150/acre bands) 31.5 N lbs/ac |
| 4/20/2010 |  | SB |  | T |  | Triple K soil preparation |
| 4/29/2010 |  | SB |  | P |  | Plant Grain Sorghum Pioneer 83,000 ac, 38" rows G66 |
| 4/30/2010 |  | SB |  | H |  | 2qt Atrazine, 32 oz Glyphosphate, 1.33 pt Charger/ac |
| 5/5/2010 |  | S |  | H |  | 1 Qt. Glyphosate/acre |
| 5/6/2010 |  | S |  | P |  | Drill Switchgrass (Alamo) 10 lbs/acre |
| 6/1/2010 |  | SB |  | F |  |  150/lbs Acre 32-0-0 Fertilizer (69 lb N/ac) |
| 6/2/2010 |  | SB |  | H |  | 2 Qt Atrazine/ac |
| 6/9/2010 |  | C |  | I |  | Provado 8 OZ/ac Insecticide |
| 6/22/2010 |  | S |  | T |  | Brillion roller, seed bed preparation |
| 7/2/2010 |  | S |  | P |  | Drill switchgrass (Alamo)10 lb/ac |
| 7/6/2010 |  | S |  | H |  |  32 OZ Glyphosate and 8 OZ Blazer/ac |
| 7/26/2010 |  | SB, S |  | MH |  | Mowed for competition control |
| 8/2/2010 |  | S |  | T |  | Brillion roller, seed bed preparation |
| 8/31/2010 |  | S |  | M |  | Mow switchgrass plots |
| 9/7/2010 |  | SB |  | HT |  | Harvest remaining grain sorghum  |
| 9/13/2010 |  | SB |  | M |  | Shred grain sorghum stalks |
| 10/13/2010 |  | S |  | T |  | Disk |
| 10/13/2010 |  | S |  | P |  | Bedder roller 76 inch beds switchgrass plots |
| 10/18/2010 |  | S |  | P |  | Plant wheat (Oakes) 50lbs/ac (cover crop) |
| 3/24/2011 |  | S |  | H |  | 22oz/ac Glyphosate Powermax |
| 5/17/2011 |  | SB |  | T |  | Harrow  |
| 5/23/2011 |  | SB |  | P |  | Plant soybean plots (HBK 4729) |
| 5/24/2011 |  | SB |  | H |  | 22oz/ac Roundup Powermax + 2 oz/ac Valor |
| 6/30/2011 |  | SB |  | H |  | 22 oz Powermax and 1.5 pt/ac Flexstar |
| 7/12/2011 |  | S |  | M |  | Mow switchgrass plots |
| 10/14/2011 |  | SB |  | HT |  | Harvest  |

1S=Switchgrass, C=Cottonwood, SB=Soybean-Grain Sorghum Rotation

2H=Herbicide, P=Planting, I=Insecticide, HT=Harvesting, T=Tillage, F=Fertilization, M=Mow

Table 2. Cropping activites that occurred during 2009-2011 at the PTBS study site.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Dates** |  | **Crop1** |  | **Activity2** |  | **Description** |
| 10/20/2008 |  | ALL |  | T |  | Disk twice and incorporate crop residues |
| 10/22/2008 |  | All |  | T |  | Subsoil to 18" |
| 10/22/2008 |  | All |  | T |  | Field cultivation |
| 11/17/2008 |  | C |  | T |  | V ripper to mark rows |
| 2/25/2009 |  | C |  | H |  | Glyphosate 1 qt.+ Scepter 70 G 5.6 oz. + Pendant 2 Qt./ac. |
| 3/5/2009 |  | S, SB |  | F |  | Lime 2 tons, 300 lbs./ac. 0-17-35 [0-51-105 elemental N,P,K] |
| 3/13/2009 |  | C |  | P |  | Cottonwood cuttings planted 4 x 6 ft |
| 4/27/2009 |  | SB |  | P |  | Plant soybeans 4834RR 70lbs./ac. 10ft. Notill Drill |
| 5/22/2009 |  | SB , S |  | H |  | Glyphosate 1.5 pints/ ac. |
| 6/11/2009 |  | S |  | P |  | Plant switchgrass[Alamo] 10ft. Notill drill |
| 6/22/2009 |  | SB |  | H |  | Glyphosate 1.5 pints/ac. |
| 6/29/2009 |  | C |  | H, I |  | Sevin 1.5lbs./ac + Section [Select] 16oz./ac. |
| 7/17/2009 |  | C |  | H |  | Poast 2pts./ac. |
| 7/31/2009 |  | All |  | I |  | Tundra [bifenthrin] 7ozs./ac.for mite control |
| 8/4/2009 |  | C |  | M |  | Mowed between cottonwood rows |
| 9/1/2009 |  | C |  | M |  | Mowed between rows cottonwood 2nd time |
| 10/21/2009 |  | SB |  | HT |  | Harvested soybeans |
| 11/6/2009 |  | SB |  | T |  | Disked  |
| 11/10/2009 |  | SB |  | T |  | Cultivate |
| 3/8/2010 |  | C |  | H |  | 4 OZ Scepter & 2 OZ Pendulum/ac  |
| 4/1/2010 |  | SB, S |  | H |  |  32 OZ Glyphosate/ac where needed |
| 4/2/2010 |  | SB |  | T |  | Chisel plow |
| 4/6/2010 |  | C |  | F |  | Banded Ammonium Nitrate (150/acre bands) 31.5 lbs/acre |
| 4/15/2010 |  | SB |  | F |  | 150 lb/acre Urea (69 lb N/ac) |
| 4/19/2010 |  | SB |  | T |  | Field Cultivation |
| 4/19/2010 |  | SB |  | P |  | Plant 80,000/ac grain sorghum [Pioneer 84G62] 15" rows |
| 4/19/2010 |  | SB |  | H |  |  1.5 qts. Atrazine 4L + 1 pint Stalwart[Metolachlor] |
| 5/27/2010 |  | S |  | F |  |  60 lb N, 60 P2O5, 100 lb K2O fertilizer/AC |
| 6/1/2010 |  | S |  | P |  | Replant Alamo Switchgrass (10 lbs/ac) in areas skipped |
| 6/8/2010 |  | S |  | M |  | Mowed 15' mower |
| 11/1/2010 |  | SB |  | HT |  | Harvested  |
| 11/11/2010 |  | SB |  | T |  | Double disked |
| 11/11/2010 |  | S |  | M |  | Mowed for baling |
| 11/11/2010 |  | S |  | HT |  | Raked for baling |
| 11/12/2010 | S |  | HT |  | Baled switchgrass. |
| 5/30/2011 |  | SB |  | T |  | Disked twice |
| 5/30/2011 |  | SB |  | T |  | Float twice 16 Ft. land plane |
| 5/31/2011 |  | SB |  | F |  | 200 lbs. 0-20-30 /ac, (0 N, 40 lbs P2O5, 60 lbs K2O/ac) |
| 6/10/2011 |  | S |  | F |  | 150 lbs./ac. Urea + Agrotain (69 lb/ac) |
| 6/23/2011 |  | SB |  | T |  | Do-All 28 Ft.  |
| 6/23/2011 |  | SB |  | P |  | Plant soybeans 4834RR 70lbs./ac. 10ft. Notill Drill, 7” row |
| 7/12/2011 |  | SB |  | H |  | 1 1/2 pints/ac. Flexstar plus 1 pt./ac. Volunteer  |
| 9/1/2011 |  | S |  | M |  |  Mowed, Raked 12 FT. mower/conditioner |
| 9/7/2011 |  | S |  | HT |  | Baled Switchgrass |
| 11/2/2011 |  | SB |  | HT |  | Harvest soybeans |

1S=Switchgrass, C=Cottonwood, SB=Soybean-Grain Sorghum Rotation

2H=Herbicide, P=Planting, I=Insecticide, HT=Harvesting, T=Tillage, F=Fertilization, M=Mow

Table 3. Cropping activities that occurred during 2009-2011 at the SF study site.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Dates** |  | **Crop1** |  | **Activity2** |  | **Description** |
| 2/27/2009 |  | All |  | H |  | 4 qt/ac site prep with glyphosate |
| 3/9/2009 |  | C |  | P |  | Planted cottonwood cuttings (4 x 6 ft spacing) |
| 5/12/2009 |  | C |  | H |  | Glyphosate at 2 qt/ac within alleys |
| 5/21/2009 |  | SB |  | P |  | Drill 4 seed/ft on 20-inch row spacing MorSoy RT5388 Soybeans |
| 6/1/2009 |  | S |  | P |  | Drill seeds 10 lb/ac switchgrass (Alamo) |
| 6/13/2009 |  | C |  | H |  | Directed 2% glyphosate |
| 7/8/2009 |  | C |  | H |  | PoastPlus at 1.25 oz/ac |
| 8/1/2009 |  | C |  | H |  | PoastPlus at 1.25 oz/ac |
| 8/1/2009 |  | S |  | H |  | 1.33 oz/ac Outrider on switchgrass |
| 9/18/2009 |  | S |  | P |  | Supplemental drilling of switchgrass (Alamo) 10 lb/ac |
| 9/1/2009 |  | S |  | MH |  | Mow switchgrass without harvesting |
| 10/23/2009 |  | SB |  | HT |  | Harvest soybeans |
| 2/20/2010 |  | C |  | H |  | 4 oz Sceptre+ 2 qt. Pendulum/ac |
| 4/9/2010 |  | C |  | F |  | Banded Ammonium Nitrate (150/acre 31.5 lbs/acre |
| 4/22/2010 |  | C |  | H |  | 1.33 oz Outrider/ac |
| 4/27/2010 |  | SB |  | P |  | Drill grain sorgum, 40 inch rows (Pioneer 84G62) 8 seeds/ft |
| 4/28/2010 |  | SB |  | H |  | Atrazine 1/qt/acre+ Dual(1pt/ac) |
| 6/3/2010 |  |  |  |  |  | Atrazine (1.5 qt/acre)+Glyphosphate (1 qt/ac) +Linex (0.5 pt/ac) between sorghum rows |
| 6/3/2010 |  | SB |  | H |  | Atrizine ( 1 qt/ac) + Linex (0.5 pt/ac) post-directed |
| 6/7/2010 |  | SB |  | F |  | 70 lbs N/acre injected 30-0-0-2 liquid fertilizer |
| 6/8/2010 |  | SB |  | F |  | 660 lb/ac NPK (3.8-9.7-12.8) & 57.4% prilled lime ( 25 lb N, 64 lb P2O5, 84 lb K2O/ac) |
| 7/14/2010 |  | SB |  | PF |  | Mustang Max (2.8 oz./ac) |
| 7/14/2010 |  | SB |  | PF |  | Headline (6 oz/ac)  |
| 7/22/2010 |  | SB |  | PF |  | Mustang Max (2.8 oz./ac) |
| 7/30/2010 |  | SB |  | PF |  | Mustang Max (2.8 oz./ac) |
| 8/5/2010 |  | C |   | H |   | 1 pt Poast/ac on cottonwood |
| 2/23/2011 |  | C |  | H |  | 4oz./ac Scepter & 2 qt/ac Pendulum |
| 4/24/2011 |  | SB |  | H, PF |  | 1.5/ac Qt. Cornerstone Plus, 2 Oz/ac Baythroid |
| 5/2/2011 |  | SB |  | P |  | Drill 4 seed/ft on 20-inch row spacing MorSoy RT5388 Soybeans |
| 5/19/2011 |  | SB |  | H |  | 4 Qt/ac Glyphosate, 5% solution as directed spray on soybean |
| 5/27/2011 |  | S |  | F |  | 350 lbs/ac 16.5-18-24 (58lbs N-63 lbs P2O5-84 lbs K20/ac) |
| 8/2/1011 |  | SB |  | H, PF |  | 1.5 Qt. Glyphosphate With Besiege (10 oz/ac) |
| 10/17/2011 |  | S |  | HT |  | Rotary mowed switchgrass |
| 10/19/2011 |  | SB |  | HT |  | Harvested soybean |
| 10/29/2011 |  | S |  | HT |  | Baled switchgrass 5 ft baler |

1S=Switchgrass, C=Cottonwood, SB=Soybean-Grain Sorghum Rotation

2H=Herbicide, P=Planting, I=Insecticide, HT=Harvesting, T=Tillage, F=Fertilization, M=Mow